

Docket No.
P66 42161

Declaration For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Low Adenosine Anti-Sense Oligonucleotide, Compositions, Kit & Method for Treatment of Airway Disorders Associated with Bronchoconstriction, Lung Inflammation, Allergy(ies) & Surfactant Overproduction

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. or PCT International Application Number _____ and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>

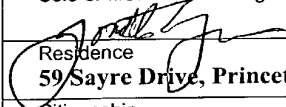
I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

<u>60/095,212</u>	<u>August 3, 1998</u>
(Application Serial No.)	(Filing Date)
<u>60/127,958</u>	<u>April 6, 1999</u>
(Application Serial No.)	(Filing Date)
<u></u>	<u></u>
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, CFR Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

<u>09/093,972</u>	<u>June 9, 1998</u>	<u>Pending</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)
<u>08/472,527</u>	<u>June 5, 1995</u>	<u>Patented</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)
<u>08/474,497</u>	<u>June 7, 1995</u>	<u>Pending</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Jonathan W. Nyce	4/6/99
Sole or first inventor's signature 	Date
Residence 59 Sayre Drive, Princeton, New Jersey 08540	
Citizenship United States	
Post Office Address Same as Above	

Full name of second inventor, if any W. James Metzger	
Second inventor's signature	Date
Residence	
Citizenship United States	
Post Office Address Same as Above	

Full name of third inventor, if any	
Third inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

Full name of fourth inventor, if any	
Fourth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

Docket No.
P66 42161

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English Language Declaration

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I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Low Adenosine Anti-Sense Oligonucleotide, Compositions, Kit & Method for Treatment of Airway Disorders Associated with Bronchoconstriction, Lung Inflammation, Allergy(ies) & Surfactant Depletion

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. or PCT International Application Number _____ and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)

(Country)

(Day/Month/Year Filed)

☐

(Number)

(Country)

(Day/Month/Year Filed)

☐

(Number)

(Country)

(Day/Month/Year Filed)

☐

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

<u>60/095,212</u>	<u>August 3, 1998</u>
(Application Serial No.)	(Filing Date)
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(Application Serial No.)	(Filing Date)
<u></u>	<u></u>
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, CFR Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

<u>09/093,972</u>	<u>June 9, 1998</u>	<u>Pending</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)
<u>08/472,527</u>	<u>June 5, 1995</u>	<u>Patented</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)
<u>08/474,497</u>	<u>June 7, 1995</u>	<u>Pending</u>
(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor: Jonathan W. Nyce	
Sole or first inventor's signature	Date
Residence 59 Sayre Drive, Princeton, New Jersey 08540	
Citizenship United States	
Post Office Address Same as Above	

Full name of second inventor, if any W. James Metzger	
Second inventor's signature <i>W. James Metzger, MD.</i>	Date 4/15/99
Residence 238 Windsor Road Greenville, NC 27858	
Citizenship United States North Carolina, Pitt County	
Post Office Address Same as Above	
I, Suzanne Godley, a Notary Public for said County and State,	
do hereby certify that W. James Metzger appeared before me this	

day and acknowledged the due execution of the foregoing instrument.
Witness my hand and official seal, this the 16th day of April, 1999.

Full name of third inventor, if any	
Third inventor's signature <i>Suzanne B. Godley</i>	Date
Residence My commission expires Oct. 11 , 19 99 .	
Citizenship	
Post Office Address	

Full name of fourth inventor, if any	
Fourth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

73999\01340

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: : Appl. Ref.: EPI-067191
Nyce et al. : Atty Ref.: 73999/01905
Appl. No: not yet assigned : Priority: US 60/127,958
Filing Date: herewith :

For: **LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE, COMPOSITIONS,
KIT & METHOD FOR TREATMENT OF AIRWAY DISORDERS
ASSOCIATED WITH BRONCHOCONTRICION, LUNCH
INFLAMMATION, ALLERGY(IES) & SURFACTANT DEPLETION**

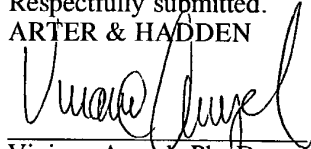
DECLARATION

Assistant Commissioner of Patents & Trademarks
Washington, DC 20231

Sir/Madam:

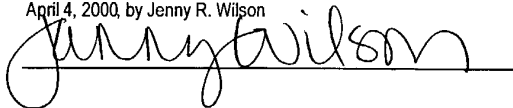
I, Viviana Amzel, hereby state that the contents of the paper copy of the Sequence Listing section submitted herewith and of the paper and computer readable copies filed herewith with the U.S. Non-Provisional patent application, and that the enclosed copy includes no significant new matter and the sequences therein are, to the best of applicant's knowledge, substantially the same, as the sequences in the original application, as filed.

Respectfully submitted.
ARTER & HADDEN


Viviana Amzel, Ph. D.
Attorney for Applicant

Citicorp Building
725 South Figueroa St.
Suite 3400
213-430-3520 Ph.
213-617-9255 Fax

I hereby certify that this paper or fee is being deposited with the United States Postal Service via Express Mail service in an Express Mail Package under the label No. EJ206757142US under 37 CFR 1.8 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington D C 20231, on April 4, 2000, by Jenny R. Wilson



SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT: East Carolina University et al.
- (ii) TITLE OF THE INVENTION: LOW ADENOSINE OLIGONUCLEOTIDE AGENT, COMPOSITION, KIT & TREATMENTS
- (iii) NUMBER OF SEQUENCES: 3110
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: ARTER & HADDEN
 - (B) STREET: 725 South Figueroa St, # 3400
 - (C) CITY: Los Angeles
 - (D) STATE: CA
 - (E) COUNTRY: USA
 - (F) ZIP: 90071
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM Compatible
 - (C) OPERATING SYSTEM: DOS
 - (D) SOFTWARE: FastSEQ for Windows Version 2.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: PCT/US99/
 - (B) FILING DATE: 3-AUG-1999
 - (C) CLASSIFICATION: UNKNOWN
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: 60/095,212
 - (B) FILING DATE: 03-AUG-1998
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Amzel, Viviana
 - (B) REGISTRATION NUMBER: 30,930
 - (C) REFERENCE/DOCKET NUMBER: EPI-109
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 213-430-3520
 - (B) TELEFAX: 213-617-9255
 - (C) TELEX:

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

GATGGAGGGC GGCATGGCGG G 21

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

GTAGCAGGCG GGGATGGGGG C 21

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

GTTGTTGGGC ATCTTGCC 18

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
 GTACTTGCGG ATCTAGGC 18

(2) INFORMATION FOR SEQ ID NO:5:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
 GTGGGCCTAG CTCTCGCC 18

(2) INFORMATION FOR SEQ ID NO:6:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
 GTCGGGGTAC CTGTCCGC 18

(2) INFORMATION FOR SEQ ID NO:7:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
 CTCGTGCCCG TCGCCGGCGG G 21

(2) INFORMATION FOR SEQ ID NO:8:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:
 GGGTGGTGCT ATTGTCGGGC 20

(2) INFORMATION FOR SEQ ID NO:9:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:
 GGGCCAGGGC CAGCC 15

(2) INFORMATION FOR SEQ ID NO:10:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:
 GGCCGGGCCA GCCGGCCCG G 21

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 50

(2) INFORMATION FOR SEQ ID NO:12:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 49 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
 CGGCCTGGAA AGCTGAGATG GAGGCGGCA TGGCGGGCAC AGGCTGGGC 49

(2) INFORMATION FOR SEQ ID NO:13:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 48 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
 GGCTTGAAA GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTGGGC 48

(2) INFORMATION FOR SEQ ID NO:14:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 47 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGGC 47

(2) INFORMATION FOR SEQ ID NO:15:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:
 CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG CTGGGC 46

(2) INFORMATION FOR SEQ ID NO:16:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC TGGGC 45

(2) INFORMATION FOR SEQ ID NO:17:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT GGGC 44

(2) INFORMATION FOR SEQ ID NO:18:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG GGC 43

(2) INFORMATION FOR SEQ ID NO:19:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:
 GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCTGG GC 42

(2) INFORMATION FOR SEQ ID NO:20:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C 41

(2) INFORMATION FOR SEQ ID NO:21:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:
 AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 40

(2) INFORMATION FOR SEQ ID NO:22:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:
 AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 39

(2) INFORMATION FOR SEQ ID NO:23:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:
 GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTGGGC 38

(2) INFORMATION FOR SEQ ID NO:24:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:
CTGAGATGGA GGC GGCATG GCGGCACAG GCTGGGC 37

(2) INFORMATION FOR SEQ ID NO:25:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:
TGAGATGGAG GGC GGCATGG CGGGCACAGG CTGGGC 36

(2) INFORMATION FOR SEQ ID NO:26:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:
GAGATGGAGG GCGGCATGGC GGCACAGGC TGGGC 35

(2) INFORMATION FOR SEQ ID NO:27:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:
AGATGGAGGG CCGCATGGCG GGCACAGGCT GGGC 34

(2) INFORMATION FOR SEQ ID NO:28:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:
GATGGAGGGC GGCATGGCGG GCACAGGCTG GGC 33

(2) INFORMATION FOR SEQ ID NO:29:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:
ATGGAGGGCG GCATGGCGGG CACAGGCTGG GC 32

(2) INFORMATION FOR SEQ ID NO:30:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:
TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C 31

(2) INFORMATION FOR SEQ ID NO:31:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:
GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 30

(2) INFORMATION FOR SEQ ID NO:32:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:
GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 29

(2) INFORMATION FOR SEQ ID NO:33:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:
AGGGCGGCAT GCGGGGCACA GGCTGGGC 28

(2) INFORMATION FOR SEQ ID NO:34:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:
GGGCGGCATG GCGGGCACAG GCTGGGC 27

(2) INFORMATION FOR SEQ ID NO:35:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:
GGCGGCATGG CGGGCACAGG CTGGGC 26

(2) INFORMATION FOR SEQ ID NO:36:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:
GCGGCATGGC GGGCACAGGC TGGGC 25

(2) INFORMATION FOR SEQ ID NO:37:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:
CGGCATGGCG GGCACAGGCT GGGC 24

(2) INFORMATION FOR SEQ ID NO:38:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:
 GGCATGGCGG GCACAGGCTG GGC 23

(2) INFORMATION FOR SEQ ID NO:39:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:
 GCATGGCGGG CACAGGCTGG GC 22

(2) INFORMATION FOR SEQ ID NO:40:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:
 CATGGCGGGC ACAGGCTGGG C 21

(2) INFORMATION FOR SEQ ID NO:41:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:
 ATGGCGGGCA CAGGCTGGGC 20

(2) INFORMATION FOR SEQ ID NO:42:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:
 TGGCGGGCAC AGGCTGGGC 19

(2) INFORMATION FOR SEQ ID NO:43:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:
 GCGGGGCACA GGCTGGGC 18

(2) INFORMATION FOR SEQ ID NO:44:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:
 GCGGGCACAG GCTGGGC 17

(2) INFORMATION FOR SEQ ID NO:45:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:
 CGGGCACAGG CTGGGC 16

(2) INFORMATION FOR SEQ ID NO:46:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:
 GGGCACAGGC TGGGC 15

(2) INFORMATION FOR SEQ ID NO:47:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:
 GGCACAGGCT GGGC 14

(2) INFORMATION FOR SEQ ID NO:48:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:
 GCACAGGCTG GGC 13

(2) INFORMATION FOR SEQ ID NO:49:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:
 CACAGGCTGG GC 12

(2) INFORMATION FOR SEQ ID NO:50:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:
 ACAGGCTGGG C 11

(2) INFORMATION FOR SEQ ID NO:51:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

CAGGCTGGGC

10

(2) INFORMATION FOR SEQ ID NO:52:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

AGGCTGGGC

9

(2) INFORMATION FOR SEQ ID NO:53:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

GGCGGCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C

51

(2) INFORMATION FOR SEQ ID NO:54:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

GGCGGCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG

50

(2) INFORMATION FOR SEQ ID NO:55:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 49 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

GGCGGCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGG

49

(2) INFORMATION FOR SEQ ID NO:56:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 48 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

GGCGGCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTG

48

(2) INFORMATION FOR SEQ ID NO:57:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 47 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

GGCGGCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCT

47

(2) INFORMATION FOR SEQ ID NO:58:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 46 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGC 46

(2) INFORMATION FOR SEQ ID NO:59:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGG 45

(2) INFORMATION FOR SEQ ID NO:60:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAG 44

(2) INFORMATION FOR SEQ ID NO:61:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACA 43

(2) INFORMATION FOR SEQ ID NO:62:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC AC 42

(2) INFORMATION FOR SEQ ID NO:63:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC A 41

(2) INFORMATION FOR SEQ ID NO:64:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC 40

(2) INFORMATION FOR SEQ ID NO:65:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGG 39

(2) INFORMATION FOR SEQ ID NO:66:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGG 38

(2) INFORMATION FOR SEQ ID NO:67:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCG 37

(2) INFORMATION FOR SEQ ID NO:68:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGC 36

(2) INFORMATION FOR SEQ ID NO:69:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGG 35

(2) INFORMATION FOR SEQ ID NO:70:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATG 34

(2) INFORMATION FOR SEQ ID NO:71:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CAT 33

(2) INFORMATION FOR SEQ ID NO:72:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CA 32

(2) INFORMATION FOR SEQ ID NO:73:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG C 31

(2) INFORMATION FOR SEQ ID NO:74:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG 30

(2) INFORMATION FOR SEQ ID NO:75:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGCG 29

(2) INFORMATION FOR SEQ ID NO:76:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:
 GGCGGCCTGG AAAGCTGAGA TGGAGGGC 28

(2) INFORMATION FOR SEQ ID NO:77:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:
 GGCGGCCTGG AAAGCTGAGA TGGAGGG 27

(2) INFORMATION FOR SEQ ID NO:78:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:78:
 GGCGGCCTGG AAAGCTGAGA TGGAGG 26

(2) INFORMATION FOR SEQ ID NO:79:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:79:
 GGCGGCCTGG AAAGCTGAGA TGGAG 25

(2) INFORMATION FOR SEQ ID NO:80:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:
 GGCGGCCTGG AAAGCTGAGA TGGA 24

(2) INFORMATION FOR SEQ ID NO:81:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:
 GGCGGCCTGG AAAGCTGAGA TGG 23

(2) INFORMATION FOR SEQ ID NO:82:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:
 GGCGGCCTGG AAAGCTGAGA TG 22

(2) INFORMATION FOR SEQ ID NO:83:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:
 GGCGGCCTGG AAAGCTGAGA T 21

(2) INFORMATION FOR SEQ ID NO:84:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:
 GGCGGCCTGG AAAGCTGAGA 20

(2) INFORMATION FOR SEQ ID NO:85:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

GGCGGCCTGG AAAGCTGAG

19

- (2) INFORMATION FOR SEQ ID NO:86:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

GGCGGCCTGG AAAGCTGA

18

- (2) INFORMATION FOR SEQ ID NO:87:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 17 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

GGCGGCCTGG AAAGCTG

17

- (2) INFORMATION FOR SEQ ID NO:88:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 16 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

GGCGGCCTGG AAAGCT

16

- (2) INFORMATION FOR SEQ ID NO:89:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

GGCGGCCTGG AAAGC

15

- (2) INFORMATION FOR SEQ ID NO:90:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 14 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

GGCGGCCTGG AAAG

14

- (2) INFORMATION FOR SEQ ID NO:91:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 13 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

GGCGGCCTGG AAA

13

- (2) INFORMATION FOR SEQ ID NO:92:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 12 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:
GGCGGCCTGG AA 12

(2) INFORMATION FOR SEQ ID NO:93:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:
GGCGGCCTGG A 11

(2) INFORMATION FOR SEQ ID NO:94:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:
GGCGGCCTGG 10

(2) INFORMATION FOR SEQ ID NO:95:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:
GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 50

(2) INFORMATION FOR SEQ ID NO:96:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 49 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:
GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGG 49

(2) INFORMATION FOR SEQ ID NO:97:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 48 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:
GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGG 48

(2) INFORMATION FOR SEQ ID NO:98:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 47 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:
GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTG 47

(2) INFORMATION FOR SEQ ID NO:99:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 46 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCT 46

(2) INFORMATION FOR SEQ ID NO:100:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGC 45

(2) INFORMATION FOR SEQ ID NO:101:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGG 44

(2) INFORMATION FOR SEQ ID NO:102:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAG 43

(2) INFORMATION FOR SEQ ID NO:103:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CA 42

(2) INFORMATION FOR SEQ ID NO:104:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA C 41

(2) INFORMATION FOR SEQ ID NO:105:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA 40

(2) INFORMATION FOR SEQ ID NO:106:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGGC 39

(2) INFORMATION FOR SEQ ID NO:107:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGGG 38

(2) INFORMATION FOR SEQ ID NO:108:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCGG 37

(2) INFORMATION FOR SEQ ID NO:109:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGCG 36

(2) INFORMATION FOR SEQ ID NO:110:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGGC 35

(2) INFORMATION FOR SEQ ID NO:111:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:111:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATGG 34

(2) INFORMATION FOR SEQ ID NO:112:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:112:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC ATG 33

(2) INFORMATION FOR SEQ ID NO:113:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:113:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC AT 32

(2) INFORMATION FOR SEQ ID NO:114:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:114:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC A 31

(2) INFORMATION FOR SEQ ID NO:115:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:115:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGGC 30

(2) INFORMATION FOR SEQ ID NO:116:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:116:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCGG 29

(2) INFORMATION FOR SEQ ID NO:117:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:117:
 GCGGCCTGGA AAGCTGAGAT GGAGGGCG 28

(2) INFORMATION FOR SEQ ID NO:118:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:118:
 GCGGCCTGGA AAGCTGAGAT GGAGGGC 27

(2) INFORMATION FOR SEQ ID NO:119:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:119:

GCGGCCTGGA AAGCTGAGAT GGAGGG

26

(2) INFORMATION FOR SEQ ID NO:120:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:120:

GCGGCCTGGA AAGCTGAGAT GGAGG

25

(2) INFORMATION FOR SEQ ID NO:121:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:121:

GCGGCCTGGA AAGCTGAGAT GGAG

24

(2) INFORMATION FOR SEQ ID NO:122:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:122:

GCGGCCTGGA AAGCTGAGAT GGA

23

(2) INFORMATION FOR SEQ ID NO:123:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

GCGGCCTGGA AAGCTGAGAT GG

22

(2) INFORMATION FOR SEQ ID NO:124:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:124:

GCGGCCTGGA AAGCTGAGAT G

21

(2) INFORMATION FOR SEQ ID NO:125:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:125:

GCGGCCTGGA AAGCTGAGAT

20

(2) INFORMATION FOR SEQ ID NO:126:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:126:
GCGGCCTGGA AAGCTGAGA 19

(2) INFORMATION FOR SEQ ID NO:127:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:127:
GCGGCCTGGA AAGCTGAG 18

(2) INFORMATION FOR SEQ ID NO:128:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:128:
GCGGCCTGGA AAGCTGA 17

(2) INFORMATION FOR SEQ ID NO:129:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:129:
GCGGCCTGGA AAGCTG 16

(2) INFORMATION FOR SEQ ID NO:130:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:130:
GCGGCCTGGA AAGCT 15

(2) INFORMATION FOR SEQ ID NO:131:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:
GCGGCCTGGA AAGC 14

(2) INFORMATION FOR SEQ ID NO:132:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:132:
GCGGCCTGGA AAG 13

(2) INFORMATION FOR SEQ ID NO:133:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:133:
 GCGGCCTGGA AA 12

(2) INFORMATION FOR SEQ ID NO:134:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:134:
 GCGGCCTGGA A 11

(2) INFORMATION FOR SEQ ID NO:135:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:135:
 GCGGCCTGGA 10

(2) INFORMATION FOR SEQ ID NO:136:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 49 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:136:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 49

(2) INFORMATION FOR SEQ ID NO:137:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 48 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:137:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGG 48

(2) INFORMATION FOR SEQ ID NO:138:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 47 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:138:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGG 47

(2) INFORMATION FOR SEQ ID NO:139:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:139:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTG 46

(2) INFORMATION FOR SEQ ID NO:140:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:140:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCT 45

(2) INFORMATION FOR SEQ ID NO:141:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:141:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGC 44

(2) INFORMATION FOR SEQ ID NO:142:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:142:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGG 43

(2) INFORMATION FOR SEQ ID NO:143:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:143:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AG 42

(2) INFORMATION FOR SEQ ID NO:144:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:144:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC A 41

(2) INFORMATION FOR SEQ ID NO:145:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:145:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCAC 40

(2) INFORMATION FOR SEQ ID NO:146:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:146:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGCA 39

(2) INFORMATION FOR SEQ ID NO:147:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:147:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGGC 38

(2) INFORMATION FOR SEQ ID NO:148:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:148:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGGG 37

(2) INFORMATION FOR SEQ ID NO:149:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:149:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCGG 36

(2) INFORMATION FOR SEQ ID NO:150:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:150:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGCG 35

(2) INFORMATION FOR SEQ ID NO:151:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:151:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGGC 34

(2) INFORMATION FOR SEQ ID NO:152:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:152:
 CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TGG 33

(2) INFORMATION FOR SEQ ID NO:153:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:153:

CGGCCTGGAA AGCTGAGATG GAGGGCGGCA TG

32

(2) INFORMATION FOR SEQ ID NO:154:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:154:

CGGCCTGGAA AGCTGAGATG GAGGGCGGCA T

31

(2) INFORMATION FOR SEQ ID NO:155:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:155:

CGGCCTGGAA AGCTGAGATG GAGGGCGGCA

30

(2) INFORMATION FOR SEQ ID NO:156:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:156:

CGGCCTGGAA AGCTGAGATG GAGGGCGGC

29

(2) INFORMATION FOR SEQ ID NO:157:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:157:

CGGCCTGGAA AGCTGAGATG GAGGGCGG

28

(2) INFORMATION FOR SEQ ID NO:158:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:158:

CGGCCTGGAA AGCTGAGATG GAGGGCG

27

(2) INFORMATION FOR SEQ ID NO:159:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:159:

CGGCCTGGAA AGCTGAGATG GAGGGC

26

(2) INFORMATION FOR SEQ ID NO:160:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:160:
 CGGCCTGGAA AGCTGAGATG GAGGG 25

(2) INFORMATION FOR SEQ ID NO:161:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:161:
 CGGCCTGGAA AGCTGAGATG GAGG 24

(2) INFORMATION FOR SEQ ID NO:162:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:162:
 CGGCCTGGAA AGCTGAGATG GAG 23

(2) INFORMATION FOR SEQ ID NO:163:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:163:
 CGGCCTGGAA AGCTGAGATG GA 22

(2) INFORMATION FOR SEQ ID NO:164:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:164:
 CGGCCTGGAA AGCTGAGATG G 21

(2) INFORMATION FOR SEQ ID NO:165:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:165:
 CGGCCTGGAA AGCTGAGATG 20

(2) INFORMATION FOR SEQ ID NO:166:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:166:
 CGGCCTGGAA AGCTGAGAT 19

(2) INFORMATION FOR SEQ ID NO:167:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:167:
 CGGCCTGGAA AGCTGAGA 18

(2) INFORMATION FOR SEQ ID NO:168:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:168:
 CGGCCTGGAA AGCTGAG 17

(2) INFORMATION FOR SEQ ID NO:169:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:169:
 CGGCCTGGAA AGCTGA 16

(2) INFORMATION FOR SEQ ID NO:170:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:170:
 CGGCCTGGAA AGCTG 15

(2) INFORMATION FOR SEQ ID NO:171:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:171:
 CGGCCTGGAA AGCT 14

(2) INFORMATION FOR SEQ ID NO:172:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:172:
 CGGCCTGGAA AGC 13

(2) INFORMATION FOR SEQ ID NO:173:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:173:
 CGGCCTGGAA AG 12

(2) INFORMATION FOR SEQ ID NO:174:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:174:
 CGGCCTGGAA A 11

(2) INFORMATION FOR SEQ ID NO:175:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:175:
 CGGCCTGGAA 10

(2) INFORMATION FOR SEQ ID NO:176:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 48 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:176:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTGGGC 48

(2) INFORMATION FOR SEQ ID NO:177:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 47 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:177:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTGGG 47

(2) INFORMATION FOR SEQ ID NO:178:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:178:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTGG 46

(2) INFORMATION FOR SEQ ID NO:179:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:179:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCTG 45

(2) INFORMATION FOR SEQ ID NO:180:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:180:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGCT 44

(2) INFORMATION FOR SEQ ID NO:181:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:181:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GGC 43

(2) INFORMATION FOR SEQ ID NO:182:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:182:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA GG 42

(2) INFORMATION FOR SEQ ID NO:183:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:183:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA G 41

(2) INFORMATION FOR SEQ ID NO:184:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:184:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCACA 40

(2) INFORMATION FOR SEQ ID NO:185:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:185:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCAC 39

(2) INFORMATION FOR SEQ ID NO:186:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:186:
 GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGCA 38

(2) INFORMATION FOR SEQ ID NO:187:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:187:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGGC

37

(2) INFORMATION FOR SEQ ID NO:188:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:188:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGGG

36

(2) INFORMATION FOR SEQ ID NO:189:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:189:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCGG

35

(2) INFORMATION FOR SEQ ID NO:190:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 34 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:190:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGCG

34

(2) INFORMATION FOR SEQ ID NO:191:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 33 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:191:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GGC

33

(2) INFORMATION FOR SEQ ID NO:192:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:192:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT GG

32

(2) INFORMATION FOR SEQ ID NO:193:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:193:

GGCCTGGAAA GCTGAGATGG AGGGCGGCAT G

31

(2) INFORMATION FOR SEQ ID NO:194:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:194:
GGCCTGGAAA GCTGAGATGG AGGGCGGCAT 30

(2) INFORMATION FOR SEQ ID NO:195:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:195:
GGCCTGGAAA GCTGAGATGG AGGGCGGCA 29

(2) INFORMATION FOR SEQ ID NO:196:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:196:
GGCCTGGAAA GCTGAGATGG AGGGCGGC 28

(2) INFORMATION FOR SEQ ID NO:197:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:197:
GGCCTGGAAA GCTGAGATGG AGGGCGG 27

(2) INFORMATION FOR SEQ ID NO:198:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:198:
GGCCTGGAAA GCTGAGATGG AGGGCG 26

(2) INFORMATION FOR SEQ ID NO:199:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:199:
GGCCTGGAAA GCTGAGATGG AGGGC 25

(2) INFORMATION FOR SEQ ID NO:200:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:200:
GGCCTGGAAA GCTGAGATGG AGGG 24

(2) INFORMATION FOR SEQ ID NO:201:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:201:
 GGCCTGGAAA GCTGAGATGG AGG 23

(2) INFORMATION FOR SEQ ID NO:202:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:202:
 GGCCTGGAAA GCTGAGATGG AG 22

(2) INFORMATION FOR SEQ ID NO:203:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:203:
 GGCCTGGAAA GCTGAGATGG A 21

(2) INFORMATION FOR SEQ ID NO:204:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:204:
 GGCCTGGAAA GCTGAGATGG 20

(2) INFORMATION FOR SEQ ID NO:205:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:205:
 GGCCTGGAAA GCTGAGATG 19

(2) INFORMATION FOR SEQ ID NO:206:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:206:
 GGCCTGGAAA GCTGAGAT 18

(2) INFORMATION FOR SEQ ID NO:207:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:207:
 GGCCTGGAAA GCTGAGA 17

(2) INFORMATION FOR SEQ ID NO:208:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:208:
 GGCCTGGAAA GCTGAG 16

(2) INFORMATION FOR SEQ ID NO:209:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:209:
 GGCCTGGAAA GCTGA 15

(2) INFORMATION FOR SEQ ID NO:210:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:210:
 GGCCTGGAAA GCTG 14

(2) INFORMATION FOR SEQ ID NO:211:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:211:
 GGCCTGGAAA GCT 13

(2) INFORMATION FOR SEQ ID NO:212:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:212:
 GGCCTGGAAA GC 12

(2) INFORMATION FOR SEQ ID NO:213:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:213:
 GGCCTGGAAA G 11

(2) INFORMATION FOR SEQ ID NO:214:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:214:
 GGCCTGGAAA 10

(2) INFORMATION FOR SEQ ID NO:215:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 47 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:215:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGGC 47

(2) INFORMATION FOR SEQ ID NO:216:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:216:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGG 46

(2) INFORMATION FOR SEQ ID NO:217:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:217:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGG 45

(2) INFORMATION FOR SEQ ID NO:218:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:218:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTG 44

(2) INFORMATION FOR SEQ ID NO:219:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:219:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GCT 43

(2) INFORMATION FOR SEQ ID NO:220:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:220:
 GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG GC 42

(2) INFORMATION FOR SEQ ID NO:221:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:221:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG G

41

(2) INFORMATION FOR SEQ ID NO:222:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:222:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG

40

(2) INFORMATION FOR SEQ ID NO:223:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:223:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCACAG

39

(2) INFORMATION FOR SEQ ID NO:224:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 38 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:224:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCAC

38

(2) INFORMATION FOR SEQ ID NO:225:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 37 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:225:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGCA

37

(2) INFORMATION FOR SEQ ID NO:226:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:226:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGGC

36

(2) INFORMATION FOR SEQ ID NO:227:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:227:

GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGGG

35

(2) INFORMATION FOR SEQ ID NO:228:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 34 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:228:
GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCGG 34

(2) INFORMATION FOR SEQ ID NO:229:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:229:
GCCTGGAAAG CTGAGATGGA GGGCGGCATG GCG 33

(2) INFORMATION FOR SEQ ID NO:230:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:230:
GCCTGGAAAG CTGAGATGGA GGGCGGCATG GC 32

(2) INFORMATION FOR SEQ ID NO:231:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:231:
GCCTGGAAAG CTGAGATGGA GGGCGGCATG G 31

(2) INFORMATION FOR SEQ ID NO:232:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:232:
GCCTGGAAAG CTGAGATGGA GGGCGGCATG 30

(2) INFORMATION FOR SEQ ID NO:233:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:233:
GCCTGGAAAG CTGAGATGGA GGGCGGCAT 29

(2) INFORMATION FOR SEQ ID NO:234:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:234:
GCCTGGAAAG CTGAGATGGA GGGCGGCA 28

(2) INFORMATION FOR SEQ ID NO:235:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:235:
 GCCTGGAAAG CTGAGATGGA GGGCGGC 27

(2) INFORMATION FOR SEQ ID NO:236:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:236:
 GCCTGGAAAG CTGAGATGGA GGGCGG 26

(2) INFORMATION FOR SEQ ID NO:237:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:237:
 GCCTGGAAAG CTGAGATGGA GGGCG 25

(2) INFORMATION FOR SEQ ID NO:238:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:238:
 GCCTGGAAAG CTGAGATGGA GGGC 24

(2) INFORMATION FOR SEQ ID NO:239:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:239:
 GCCTGGAAAG CTGAGATGGA GGG 23

(2) INFORMATION FOR SEQ ID NO:240:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:240:
 GCCTGGAAAG CTGAGATGGA GG 22

(2) INFORMATION FOR SEQ ID NO:241:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:241:
 GCCTGGAAAG CTGAGATGGA G 21

(2) INFORMATION FOR SEQ ID NO:242:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:242:
 GCCTGGAAAG CTGAGATGGA 20

(2) INFORMATION FOR SEQ ID NO:243:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:243:
 GCCTGGAAAG CTGAGATGG 19

(2) INFORMATION FOR SEQ ID NO:244:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:244:
 GCCTGGAAAG CTGAGATG 18

(2) INFORMATION FOR SEQ ID NO:245:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:245:
 GCCTGGAAAG CTGAGAT 17

(2) INFORMATION FOR SEQ ID NO:246:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:246:
 GCCTGGAAAG CTGAGA 16

(2) INFORMATION FOR SEQ ID NO:247:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:247:
 GCCTGGAAAG CTGAG 15

(2) INFORMATION FOR SEQ ID NO:248:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:248:
 GCCTGGAAAG CTGA 14

(2) INFORMATION FOR SEQ ID NO:249:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:249:
 GCCTGGAAAG CTG 13

(2) INFORMATION FOR SEQ ID NO:250:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:250:
 GCCTGGAAAG CT 12

(2) INFORMATION FOR SEQ ID NO:251:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:251:
 GCCTGGAAAG C 11

(2) INFORMATION FOR SEQ ID NO:252:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:252:
 GCCTGGAAAG 10

(2) INFORMATION FOR SEQ ID NO:253:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:253:
 CCTGGAAAGC TGAGATGGAG GGCGGCATGG CGGGCACAGG CTGGGG 46

(2) INFORMATION FOR SEQ ID NO:254:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:254:
 CCTGGAAAGC TGAGATGGAG GGCGGCATGG CGGGCACAGG CTGGG 45

(2) INFORMATION FOR SEQ ID NO:255:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:255:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG CTGG

44

(2) INFORMATION FOR SEQ ID NO:256:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:256:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG CTG

43

(2) INFORMATION FOR SEQ ID NO:257:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:257:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG CT

42

(2) INFORMATION FOR SEQ ID NO:258:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 41 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:258:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG C

41

(2) INFORMATION FOR SEQ ID NO:259:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 40 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:259:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAGG

40

(2) INFORMATION FOR SEQ ID NO:260:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:260:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACAG

39

(2) INFORMATION FOR SEQ ID NO:261:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:261:

CCTGGAAAGC TGAGATGGAG GCGGCATGG CGGGCACA

38

(2) INFORMATION FOR SEQ ID NO:262:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:262:
CCTGGAAGC TGAGATGGAG GCGGCATGG CGGGCAC

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(2) INFORMATION FOR SEQ ID NO:263:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:263:

CCTGGAAAGC TGAGATGGAG GGCGGCATGG CGGGCA

(2) INFORMATION FOR SEQ ID NO:264:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:264:

CCTGGAAAGC TGAGATGGAG GCGCGCATGG CGGGC

(2) INFORMATION FOR SEQ ID NO:265:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 34 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:265:

CCTGGAAGC TGAGATGGAG GCGGCATGG CGGG

(2) INFORMATION FOR SEQ ID NO:266:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 33 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:266:

CCTGGAAGC TGAGATGGAG GCGGCATGG CGG

(2) INFORMATION FOR SEQ ID NO:267:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 32 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:267:

CCTGGAAAGC TGAGATGGAG GCGCGCATGG CG

32

(2) INFORMATION FOR SEQ ID NO:268:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:268:

CCTGGAAAGC TGAGATGGAG GGCGGCATGG C

(2) INFORMATION FOR SEQ ID NO:269:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:269:
 CCTGGAAAGC TGAGATGGAG GGCATGG 30

(2) INFORMATION FOR SEQ ID NO:270:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:270:
 CCTGGAAAGC TGAGATGGAG GGCATGG 29

(2) INFORMATION FOR SEQ ID NO:271:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:271:
 CCTGGAAAGC TGAGATGGAG GGCAT 28

(2) INFORMATION FOR SEQ ID NO:272:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:272:
 CCTGGAAAGC TGAGATGGAG GCGCA 27

(2) INFORMATION FOR SEQ ID NO:273:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:273:
 CCTGGAAAGC TGAGATGGAG GCGC 26

(2) INFORMATION FOR SEQ ID NO:274:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:274:
 CCTGGAAAGC TGAGATGGAG GCG 25

(2) INFORMATION FOR SEQ ID NO:275:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:275:
 CCTGGAAAGC TGAGATGGAG GC 24

(2) INFORMATION FOR SEQ ID NO:276:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:276:
 CCTGGAAAGC TGAGATGGAG GGC 23

(2) INFORMATION FOR SEQ ID NO:277:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:277:
 CCTGGAAAGC TGAGATGGAG GG 22

(2) INFORMATION FOR SEQ ID NO:278:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:278:
 CCTGGAAAGC TGAGATGGAG G 21

(2) INFORMATION FOR SEQ ID NO:279:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:279:
 CCTGGAAAGC TGAGATGGAG 20

(2) INFORMATION FOR SEQ ID NO:280:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:280:
 CCTGGAAAGC TGAGATGGA 19

(2) INFORMATION FOR SEQ ID NO:281:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:281:
 CCTGGAAAGC TGAGATGG 18

(2) INFORMATION FOR SEQ ID NO:282:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:282:
 CCTGGAAAGC TGAGATG 17

(2) INFORMATION FOR SEQ ID NO:283:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:283:
 CCTGGAAAGC TGAGAT 16

(2) INFORMATION FOR SEQ ID NO:284:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:284:
 CCTGGAAAGC TGAGA 15

(2) INFORMATION FOR SEQ ID NO:285:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:285:
 CCTGGAAAGC TGAG 14

(2) INFORMATION FOR SEQ ID NO:286:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:286:
 CCTGGAAAGC TGA 13

(2) INFORMATION FOR SEQ ID NO:287:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:287:
 CCTGGAAAGC TG 12

(2) INFORMATION FOR SEQ ID NO:288:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:288:
 CCTGGAAAGC T 11

(2) INFORMATION FOR SEQ ID NO:289:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:289:
 CCTGGAAAGC 10

(2) INFORMATION FOR SEQ ID NO:290:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:290:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC TGGGC 45

(2) INFORMATION FOR SEQ ID NO:291:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:291:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC TGGG 44

(2) INFORMATION FOR SEQ ID NO:292:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:292:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC TGG 43

(2) INFORMATION FOR SEQ ID NO:293:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:293:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC TG 42

(2) INFORMATION FOR SEQ ID NO:294:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:294:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC T 41

(2) INFORMATION FOR SEQ ID NO:295:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:295:
 CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGGC 40

(2) INFORMATION FOR SEQ ID NO:296:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:296:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAGG 39

(2) INFORMATION FOR SEQ ID NO:297:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:297:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACAG 38

(2) INFORMATION FOR SEQ ID NO:298:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:298:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCACA 37

(2) INFORMATION FOR SEQ ID NO:299:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:299:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCAC 36

(2) INFORMATION FOR SEQ ID NO:300:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:300:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGCA 35

(2) INFORMATION FOR SEQ ID NO:301:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:301:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGGC 34

(2) INFORMATION FOR SEQ ID NO:302:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:302:
CTGGAAAGCT GAGATGGAGG GCGGCATGGC GGG 33

(2) INFORMATION FOR SEQ ID NO:303:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:303:

CTGGAAAGCT GAGATGGAGG GCGGCATGGC GG

32

(2) INFORMATION FOR SEQ ID NO:304:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:304:

CTGGAAAGCT GAGATGGAGG GCGGCATGGC G

31

(2) INFORMATION FOR SEQ ID NO:305:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:305:

CTGGAAAGCT GAGATGGAGG GCGGCATGGC

30

(2) INFORMATION FOR SEQ ID NO:306:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 29 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:306:

CTGGAAAGCT GAGATGGAGG GCGGCATGG

29

(2) INFORMATION FOR SEQ ID NO:307:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:307:

CTGGAAAGCT GAGATGGAGG GCGGCATG

28

(2) INFORMATION FOR SEQ ID NO:308:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:308:

CTGGAAAGCT GAGATGGAGG GCGGCAT

27

(2) INFORMATION FOR SEQ ID NO:309:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:309:

CTGGAAAGCT GAGATGGAGG GCGGCA

26

(2) INFORMATION FOR SEQ ID NO:310:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:310:

CTGGAAAGCT GAGATGGAGG GCGGC

25

(2) INFORMATION FOR SEQ ID NO:311:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:311:
 CTGGAAAGCT GAGATGGAGG GCGG 24

(2) INFORMATION FOR SEQ ID NO:312:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:312:
 CTGGAAAGCT GAGATGGAGG GCG 23

(2) INFORMATION FOR SEQ ID NO:313:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:313:
 CTGGAAAGCT GAGATGGAGG GC 22

(2) INFORMATION FOR SEQ ID NO:314:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:314:
 CTGGAAAGCT GAGATGGAGG G 21

(2) INFORMATION FOR SEQ ID NO:315:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:315:
 CTGGAAAGCT GAGATGGAGG 20

(2) INFORMATION FOR SEQ ID NO:316:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:316:
 CTGGAAAGCT GAGATGGAG 19

(2) INFORMATION FOR SEQ ID NO:317:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:317:
 CTGGAAAGCT GAGATGGA 18

(2) INFORMATION FOR SEQ ID NO:318:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:318:
 CTGGAAAGCT GAGATGG 17

(2) INFORMATION FOR SEQ ID NO:319:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:319:
CTGGAAAGCT GAGATG 16

(2) INFORMATION FOR SEQ ID NO:320:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:320:
CTGGAAAGCT GAGAT 15

(2) INFORMATION FOR SEQ ID NO:321:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:321:
CTGGAAAGCT GAGA 14

(2) INFORMATION FOR SEQ ID NO:322:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:322:
CTGGAAAGCT GAG 13

(2) INFORMATION FOR SEQ ID NO:323:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:323:
CTGGAAAGCT GA 12

(2) INFORMATION FOR SEQ ID NO:324:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:324:
CTGGAAAGCT G 11

(2) INFORMATION FOR SEQ ID NO:325:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:325:
CTGGAAAGCT 10

(2) INFORMATION FOR SEQ ID NO:326:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:326:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT GGGC 44

(2) INFORMATION FOR SEQ ID NO:327:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:327:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT GGG 43

(2) INFORMATION FOR SEQ ID NO:328:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:328:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT GG 42

(2) INFORMATION FOR SEQ ID NO:329:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:329:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT G 41

(2) INFORMATION FOR SEQ ID NO:330:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:330:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGCT 40

(2) INFORMATION FOR SEQ ID NO:331:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:331:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGGC 39

(2) INFORMATION FOR SEQ ID NO:332:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:332:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAGG 38

(2) INFORMATION FOR SEQ ID NO:333:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:333:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACAG 37

(2) INFORMATION FOR SEQ ID NO:334:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:334:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCACA 36

(2) INFORMATION FOR SEQ ID NO:335:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:335:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCAC 35

(2) INFORMATION FOR SEQ ID NO:336:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:336:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGCA 34

(2) INFORMATION FOR SEQ ID NO:337:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:337:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GGC 33

(2) INFORMATION FOR SEQ ID NO:338:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:338:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG GG 32

(2) INFORMATION FOR SEQ ID NO:339:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:339:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG G 31

(2) INFORMATION FOR SEQ ID NO:340:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:340:
 TGGAAAGCTG AGATGGAGGG CGGCATGGCG 30

(2) INFORMATION FOR SEQ ID NO:341:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:341:
TGGAAAGCTG AGATGGAGGG CGGCATGGC 29

(2) INFORMATION FOR SEQ ID NO:342:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:342:
TGGAAAGCTG AGATGGAGGG CGGCATGG 28

(2) INFORMATION FOR SEQ ID NO:343:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:343:
TGGAAAGCTG AGATGGAGGG CGGCATG 27

(2) INFORMATION FOR SEQ ID NO:344:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:344:
TGGAAAGCTG AGATGGAGGG CGGCAT 26

(2) INFORMATION FOR SEQ ID NO:345:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:345:
TGGAAAGCTG AGATGGAGGG CGGCA 25

(2) INFORMATION FOR SEQ ID NO:346:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:346:
TGGAAAGCTG AGATGGAGGG CGGC 24

(2) INFORMATION FOR SEQ ID NO:347:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:347:
TGGAAAGCTG AGATGGAGGG CGG 23

(2) INFORMATION FOR SEQ ID NO:348:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:348:
TGGAAAGCTG AGATGGAGGG CG 22

(2) INFORMATION FOR SEQ ID NO:349:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:349:
 TGGAAAGCTG AGATGGAGGG C 21

(2) INFORMATION FOR SEQ ID NO:350:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:350:
 TGGAAAGCTG AGATGGAGGG 20

(2) INFORMATION FOR SEQ ID NO:351:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:351:
 TGGAAAGCTG AGATGGAGG 19

(2) INFORMATION FOR SEQ ID NO:352:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:352:
 TGGAAAGCTG AGATGGAG 18

(2) INFORMATION FOR SEQ ID NO:353:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:353:
 TGGAAAGCTG AGATGGA 17

(2) INFORMATION FOR SEQ ID NO:354:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:354:
 TGGAAAGCTG AGATGG 16

(2) INFORMATION FOR SEQ ID NO:355:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:355:
 TGGAAAGCTG AGATG 15

(2) INFORMATION FOR SEQ ID NO:356:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:356:
TGGAAAGCTG AGAT

14

(2) INFORMATION FOR SEQ ID NO:357:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:357:
TGGAAAGCTG AGA

13

(2) INFORMATION FOR SEQ ID NO:358:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:358:
TGGAAAGCTG AG

12

(2) INFORMATION FOR SEQ ID NO:359:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:359:
TGGAAAGCTG A

11

(2) INFORMATION FOR SEQ ID NO:360:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:360:
TGGAAAGCTG

10

(2) INFORMATION FOR SEQ ID NO:361:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:361:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG GGC

43

(2) INFORMATION FOR SEQ ID NO:362:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:362:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG GG

42

(2) INFORMATION FOR SEQ ID NO:363:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 41 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:363:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG G

41

(2) INFORMATION FOR SEQ ID NO:364:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:364:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCTG 40

(2) INFORMATION FOR SEQ ID NO:365:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:365:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGCT 39

(2) INFORMATION FOR SEQ ID NO:366:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:366:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGGC 38

(2) INFORMATION FOR SEQ ID NO:367:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:367:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAGG 37

(2) INFORMATION FOR SEQ ID NO:368:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:368:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACAG 36

(2) INFORMATION FOR SEQ ID NO:369:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:369:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCACA 35

(2) INFORMATION FOR SEQ ID NO:370:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:370:
 GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCAC 34

(2) INFORMATION FOR SEQ ID NO:371:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:371:

GGAAAGCTGA GATGGAGGGC GGCATGGCGG GCA

33

(2) INFORMATION FOR SEQ ID NO:372:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:372:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG GC

32

(2) INFORMATION FOR SEQ ID NO:373:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:373:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG G

31

(2) INFORMATION FOR SEQ ID NO:374:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:374:
GGAAAGCTGA GATGGAGGGC GGCATGGCGG

30

(2) INFORMATION FOR SEQ ID NO:375:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:375:
GGAAAGCTGA GATGGAGGGC GGCATGGCG

29

(2) INFORMATION FOR SEQ ID NO:376:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:376:
GGAAAGCTGA GATGGAGGGC GGCATGGC

28

(2) INFORMATION FOR SEQ ID NO:377:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:377:
GGAAAGCTGA GATGGAGGGC GGCATGG

27

(2) INFORMATION FOR SEQ ID NO:378:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:378:
GGAAAGCTGA GATGGAGGGC GGCATG

26

(2) INFORMATION FOR SEQ ID NO:379:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:379:
 GGAAAGCTGA GATGGAGGGC GGCAT 25

(2) INFORMATION FOR SEQ ID NO:380:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:380:
 GGAAAGCTGA GATGGAGGGC GGCA 24

(2) INFORMATION FOR SEQ ID NO:381:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:381:
 GGAAAGCTGA GATGGAGGGC GGC 23

(2) INFORMATION FOR SEQ ID NO:382:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:382:
 GGAAAGCTGA GATGGAGGGC GG 22

(2) INFORMATION FOR SEQ ID NO:383:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:383:
 GGAAAGCTGA GATGGAGGGC G 21

(2) INFORMATION FOR SEQ ID NO:384:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:384:
 GGAAAGCTGA GATGGAGGGC 20

(2) INFORMATION FOR SEQ ID NO:385:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:385:
 GGAAAGCTGA GATGGAGGG 19

(2) INFORMATION FOR SEQ ID NO:386:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:386:
 GGAAAGCTGA GATGGAGG 18

(2) INFORMATION FOR SEQ ID NO:387:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:387:
 GGAAAGCTGA GATGGAG 17

(2) INFORMATION FOR SEQ ID NO:388:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:388:
 GGAAAGCTGA GATGGA 16

(2) INFORMATION FOR SEQ ID NO:389:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:389:
 GGAAAGCTGA GATGG 15

(2) INFORMATION FOR SEQ ID NO:390:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:390:
 GGAAAGCTGA GATG 14

(2) INFORMATION FOR SEQ ID NO:391:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:391:
 GGAAAGCTGA GAT 13

(2) INFORMATION FOR SEQ ID NO:392:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:392:
 GGAAAGCTGA GA 12

(2) INFORMATION FOR SEQ ID NO:393:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:393:
 GGAAAGCTGA G 11

(2) INFORMATION FOR SEQ ID NO:394:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:394:
GAAAGCTGA 10

(2) INFORMATION FOR SEQ ID NO:395:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 42 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:395:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCTGG GC 42

(2) INFORMATION FOR SEQ ID NO:396:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:396:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCTGG G 41

(2) INFORMATION FOR SEQ ID NO:397:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 40 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:397:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCTGG 40

(2) INFORMATION FOR SEQ ID NO:398:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:398:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCTG 39

(2) INFORMATION FOR SEQ ID NO:399:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:399:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGCT 38

(2) INFORMATION FOR SEQ ID NO:400:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:400:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGGC 37

(2) INFORMATION FOR SEQ ID NO:401:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:401:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAGG 36

(2) INFORMATION FOR SEQ ID NO:402:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:402:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACAG 35

(2) INFORMATION FOR SEQ ID NO:403:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:403:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CACA 34

(2) INFORMATION FOR SEQ ID NO:404:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:404:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CAC 33

(2) INFORMATION FOR SEQ ID NO:405:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:405:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG CA 32

(2) INFORMATION FOR SEQ ID NO:406:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:406:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG C 31

(2) INFORMATION FOR SEQ ID NO:407:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:407:
GAAAGCTGAG ATGGAGGGCG GCATGGCGGG 30

(2) INFORMATION FOR SEQ ID NO:408:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:408:
GAAAGCTGAG ATGGAGGGCG GCATGGCGG 29

(2) INFORMATION FOR SEQ ID NO:409:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:409:
GAAAGCTGAG ATGGAGGGCG GCATGGCG 28

(2) INFORMATION FOR SEQ ID NO:410:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:410:
GAAAGCTGAG ATGGAGGGCG GCATGGC 27

(2) INFORMATION FOR SEQ ID NO:411:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:411:
GAAAGCTGAG ATGGAGGGCG GCATGG 26

(2) INFORMATION FOR SEQ ID NO:412:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:412:
GAAAGCTGAG ATGGAGGGCG GCATG 25

(2) INFORMATION FOR SEQ ID NO:413:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:413:
GAAAGCTGAG ATGGAGGGCG GCAT 24

(2) INFORMATION FOR SEQ ID NO:414:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:414:
GAAAGCTGAG ATGGAGGGCG GCA 23

(2) INFORMATION FOR SEQ ID NO:415:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:415:
GAAAGCTGAG ATGGAGGGCG GC 22

(2) INFORMATION FOR SEQ ID NO:416:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:416:
GAAAGCTGAG ATGGAGGGCG G 21

(2) INFORMATION FOR SEQ ID NO:417:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:417:
 GAAAGCTGAG ATGGAGGGCG 20

(2) INFORMATION FOR SEQ ID NO:418:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:418:
 GAAAGCTGAG ATGGAGGGC 19

(2) INFORMATION FOR SEQ ID NO:419:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:419:
 GAAAGCTGAG ATGGAGGG 18

(2) INFORMATION FOR SEQ ID NO:420:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:420:
 GAAAGCTGAG ATGGAGG 17

(2) INFORMATION FOR SEQ ID NO:421:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:421:
 GAAAGCTGAG ATGGAG 16

(2) INFORMATION FOR SEQ ID NO:422:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:422:
 GAAAGCTGAG ATGGA 15

(2) INFORMATION FOR SEQ ID NO:423:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:423:
 GAAAGCTGAG ATGG 14

(2) INFORMATION FOR SEQ ID NO:424:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:424:
GAAAGCTGAG ATG 13

(2) INFORMATION FOR SEQ ID NO:425:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:425:
GAAAGCTGAG AT 12

(2) INFORMATION FOR SEQ ID NO:426:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:426:
GAAAGCTGAG A 11

(2) INFORMATION FOR SEQ ID NO:427:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:427:
GAAAGCTGAG 10

(2) INFORMATION FOR SEQ ID NO:428:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:428:
AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C 41

(2) INFORMATION FOR SEQ ID NO:429:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 40 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:429:
AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG 40

(2) INFORMATION FOR SEQ ID NO:430:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:430:
AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGG 39

(2) INFORMATION FOR SEQ ID NO:431:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:431:
AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTG 38

(2) INFORMATION FOR SEQ ID NO:432:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:432:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCT 37

(2) INFORMATION FOR SEQ ID NO:433:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:433:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGC 36

(2) INFORMATION FOR SEQ ID NO:434:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:434:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGG 35

(2) INFORMATION FOR SEQ ID NO:435:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:435:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAG 34

(2) INFORMATION FOR SEQ ID NO:436:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:436:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACA 33

(2) INFORMATION FOR SEQ ID NO:437:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:437:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC AC 32

(2) INFORMATION FOR SEQ ID NO:438:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:438:
 AAAGCTGAGA TGGAGGGCGG CATGGCGGGC A 31

(2) INFORMATION FOR SEQ ID NO:439:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:439:

AAAGCTGAGA TGGAGGGCGG CATGGCGGGC 30

(2) INFORMATION FOR SEQ ID NO:440:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 29 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:440:

AAAGCTGAGA TGGAGGGCGG CATGGCGGG 29

(2) INFORMATION FOR SEQ ID NO:441:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:441:

AAAGCTGAGA TGGAGGGCGG CATGGCGG 28

(2) INFORMATION FOR SEQ ID NO:442:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:442:

AAAGCTGAGA TGGAGGGCGG CATGGCG 27

(2) INFORMATION FOR SEQ ID NO:443:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:443:

AAAGCTGAGA TGGAGGGCGG CATGGC 26

(2) INFORMATION FOR SEQ ID NO:444:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:444:

AAAGCTGAGA TGGAGGGCGG CATGG 25

(2) INFORMATION FOR SEQ ID NO:445:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:445:

AAAGCTGAGA TGGAGGGCGG CATG 24

(2) INFORMATION FOR SEQ ID NO:446:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:446:

AAAGCTGAGA TGGAGGGCGG CAT 23

(2) INFORMATION FOR SEQ ID NO:447:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:447:
 AAAGCTGAGA TGGAGGGCGG CA 22

(2) INFORMATION FOR SEQ ID NO:448:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:448:
 AAAGCTGAGA TGGAGGGCGG C 21

(2) INFORMATION FOR SEQ ID NO:449:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:449:
 AAAGCTGAGA TGGAGGGCGG 20

(2) INFORMATION FOR SEQ ID NO:450:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:450:
 AAAGCTGAGA TGGAGGGCG 19

(2) INFORMATION FOR SEQ ID NO:451:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:451:
 AAAGCTGAGA TGGAGGGC 18

(2) INFORMATION FOR SEQ ID NO:452:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:452:
 AAAGCTGAGA TGGAGGG 17

(2) INFORMATION FOR SEQ ID NO:453:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:453:
 AAAGCTGAGA TGGAGG 16

(2) INFORMATION FOR SEQ ID NO:454:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:454:
 AAAGCTGAGA TGGAG 15

(2) INFORMATION FOR SEQ ID NO:455:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:455:
 AAAGCTGAGA TGGA 14

(2) INFORMATION FOR SEQ ID NO:456:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:456:
 AAAGCTGAGA TGG 13

(2) INFORMATION FOR SEQ ID NO:457:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:457:
 AAAGCTGAGA TG 12

(2) INFORMATION FOR SEQ ID NO:458:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:458:
 AAAGCTGAGA T 11

(2) INFORMATION FOR SEQ ID NO:459:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:459:
 AAAGCTGAGA 10

(2) INFORMATION FOR SEQ ID NO:460:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:460:
 AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 40

(2) INFORMATION FOR SEQ ID NO:461:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:461:
 AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGGG 39

(2) INFORMATION FOR SEQ ID NO:462:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:462:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTGG 38

(2) INFORMATION FOR SEQ ID NO:463:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:463:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCTG 37

(2) INFORMATION FOR SEQ ID NO:464:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:464:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGCT 36

(2) INFORMATION FOR SEQ ID NO:465:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:465:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGGC 35

(2) INFORMATION FOR SEQ ID NO:466:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:466:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAGG 34

(2) INFORMATION FOR SEQ ID NO:467:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:467:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CAG 33

(2) INFORMATION FOR SEQ ID NO:468:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:468:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA CA 32

(2) INFORMATION FOR SEQ ID NO:469:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:469:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA C 31

(2) INFORMATION FOR SEQ ID NO:470:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:470:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGCA 30

(2) INFORMATION FOR SEQ ID NO:471:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:471:
AAGCTGAGAT GGAGGGCGGC ATGGCGGGC 29

(2) INFORMATION FOR SEQ ID NO:472:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:472:
AAGCTGAGAT GGAGGGCGGC ATGGCGGG 28

(2) INFORMATION FOR SEQ ID NO:473:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:473:
AAGCTGAGAT GGAGGGCGGC ATGGCGG 27

(2) INFORMATION FOR SEQ ID NO:474:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:474:
AAGCTGAGAT GGAGGGCGGC ATGGCG 26

(2) INFORMATION FOR SEQ ID NO:475:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:475:
AAGCTGAGAT GGAGGGCGGC ATGGC 25

(2) INFORMATION FOR SEQ ID NO:476:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:476:
AAGCTGAGAT GGAGGGCGGC ATGG 24

(2) INFORMATION FOR SEQ ID NO:477:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:477:
 AAGCTGAGAT GGAGGGCGGC ATG 23

(2) INFORMATION FOR SEQ ID NO:478:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:478:
 AAGCTGAGAT GGAGGGCGGC AT 22

(2) INFORMATION FOR SEQ ID NO:479:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:479:
 AAGCTGAGAT GGAGGGCGGC A 21

(2) INFORMATION FOR SEQ ID NO:480:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:480:
 AAGCTGAGAT GGAGGGCGGC 20

(2) INFORMATION FOR SEQ ID NO:481:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:481:
 AAGCTGAGAT GGAGGGCGG 19

(2) INFORMATION FOR SEQ ID NO:482:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:482:
 AAGCTGAGAT GGAGGGCG 18

(2) INFORMATION FOR SEQ ID NO:483:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:483:
 AAGCTGAGAT GGAGGGC 17

(2) INFORMATION FOR SEQ ID NO:484:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:484:
 AAGCTGAGAT GGAGGG 16

(2) INFORMATION FOR SEQ ID NO:485:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:485:
 AAGCTGAGAT GGAGG 15

(2) INFORMATION FOR SEQ ID NO:486:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:486:
 AAGCTGAGAT GGAG 14

(2) INFORMATION FOR SEQ ID NO:487:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:487:
 AAGCTGAGAT GGA 13

(2) INFORMATION FOR SEQ ID NO:488:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:488:
 AAGCTGAGAT GG 12

(2) INFORMATION FOR SEQ ID NO:489:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:489:
 AAGCTGAGAT G 11

(2) INFORMATION FOR SEQ ID NO:490:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:490:
 AAGCTGAGAT 10

(2) INFORMATION FOR SEQ ID NO:491:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:491:
 AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 39

(2) INFORMATION FOR SEQ ID NO:492:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:492:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGGG 38

(2) INFORMATION FOR SEQ ID NO:493:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:493:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTGG 37

(2) INFORMATION FOR SEQ ID NO:494:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:494:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCTG 36

(2) INFORMATION FOR SEQ ID NO:495:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:495:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGCT 35

(2) INFORMATION FOR SEQ ID NO:496:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:496:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGGC 34

(2) INFORMATION FOR SEQ ID NO:497:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:497:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AGG 33

(2) INFORMATION FOR SEQ ID NO:498:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:498:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC AG 32

(2) INFORMATION FOR SEQ ID NO:499:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:499:
AGCTGAGATG GAGGGCGGCA TGGCGGGCAC A 31

(2) INFORMATION FOR SEQ ID NO:500:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:500:
 AGCTGAGATG GAGGGCGGCA TGGCGGGCAC 30

(2) INFORMATION FOR SEQ ID NO:501:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:501:
 AGCTGAGATG GAGGGCGGCA TGGCGGGCA 29

(2) INFORMATION FOR SEQ ID NO:502:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:502:
 AGCTGAGATG GAGGGCGGCA TGGCGGGC 28

(2) INFORMATION FOR SEQ ID NO:503:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:503:
 AGCTGAGATG GAGGGCGGCA TGGCGGG 27

(2) INFORMATION FOR SEQ ID NO:504:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:504:
 AGCTGAGATG GAGGGCGGCA TGGCGG 26

(2) INFORMATION FOR SEQ ID NO:505:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:505:
 AGCTGAGATG GAGGGCGGCA TGGCG 25

(2) INFORMATION FOR SEQ ID NO:506:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:506:
 AGCTGAGATG GAGGGCGGCA TGGC 24

(2) INFORMATION FOR SEQ ID NO:507:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:507:

AGCTGAGATG GAGGGCGGCA TGG

23

(2) INFORMATION FOR SEQ ID NO:508:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:508:

AGCTGAGATG GAGGGCGGCA TG

22

(2) INFORMATION FOR SEQ ID NO:509:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:509:

AGCTGAGATG GAGGGCGGCA T

21

(2) INFORMATION FOR SEQ ID NO:510:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:510:

AGCTGAGATG GAGGGCGGCA

20

(2) INFORMATION FOR SEQ ID NO:511:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:511:

AGCTGAGATG GAGGGCGGC

19

(2) INFORMATION FOR SEQ ID NO:512:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:512:

AGCTGAGATG GAGGGCGG

18

(2) INFORMATION FOR SEQ ID NO:513:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:513:

AGCTGAGATG GAGGGCG

17

(2) INFORMATION FOR SEQ ID NO:514:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:514:

AGCTGAGATG GAGGGC

16

(2) INFORMATION FOR SEQ ID NO:515:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:515:
 AGCTGAGATG GAGGG 15

(2) INFORMATION FOR SEQ ID NO:516:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:516:
 AGCTGAGATG GAGG 14

(2) INFORMATION FOR SEQ ID NO:517:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:517:
 AGCTGAGATG GAG 13

(2) INFORMATION FOR SEQ ID NO:518:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:518:
 AGCTGAGATG GA 12

(2) INFORMATION FOR SEQ ID NO:519:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:519:
 AGCTGAGATG G 11

(2) INFORMATION FOR SEQ ID NO:520:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:520:
 AGCTGAGATG 10

(2) INFORMATION FOR SEQ ID NO:521:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:521:
 GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTGGGC 38

(2) INFORMATION FOR SEQ ID NO:522:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:522:
 GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTGGG 37

(2) INFORMATION FOR SEQ ID NO:523:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:523:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTGG 36

(2) INFORMATION FOR SEQ ID NO:524:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:524:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCTG 35

(2) INFORMATION FOR SEQ ID NO:525:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:525:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGCT 34

(2) INFORMATION FOR SEQ ID NO:526:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:526:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA GGC 33

(2) INFORMATION FOR SEQ ID NO:527:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:527:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA GG 32

(2) INFORMATION FOR SEQ ID NO:528:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:528:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA G 31

(2) INFORMATION FOR SEQ ID NO:529:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:529:
GCTGAGATGG AGGGCGGCAT GCGGGGCACA 30

(2) INFORMATION FOR SEQ ID NO:530:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:530:
GCTGAGATGG AGGGCGGCAT GCGGGGCAC 29

(2) INFORMATION FOR SEQ ID NO:531:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:531:
GCTGAGATGG AGGGCGGCAT GCGGGGCA 28

(2) INFORMATION FOR SEQ ID NO:532:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:532:
GCTGAGATGG AGGGCGGCAT GCGGGC 27

(2) INFORMATION FOR SEQ ID NO:533:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:533:
GCTGAGATGG AGGGCGGCAT GCGGG 26

(2) INFORMATION FOR SEQ ID NO:534:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:534:
GCTGAGATGG AGGGCGGCAT GCGG 25

(2) INFORMATION FOR SEQ ID NO:535:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:535:
GCTGAGATGG AGGGCGGCAT GCG 24

(2) INFORMATION FOR SEQ ID NO:536:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:536:
GCTGAGATGG AGGGCGGCAT GGC 23

(2) INFORMATION FOR SEQ ID NO:537:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:537:
GCTGAGATGG AGGGCGGCAT GG 22

(2) INFORMATION FOR SEQ ID NO:538:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:538:
GCTGAGATGG AGGGCGGCAT G 21

(2) INFORMATION FOR SEQ ID NO:539:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:539:
GCTGAGATGG AGGGCGGCAT 20

(2) INFORMATION FOR SEQ ID NO:540:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:540:
GCTGAGATGG AGGGCGGCA 19

(2) INFORMATION FOR SEQ ID NO:541:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:541:
GCTGAGATGG AGGGCGGC 18

(2) INFORMATION FOR SEQ ID NO:542:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:542:
GCTGAGATGG AGGGCGG 17

(2) INFORMATION FOR SEQ ID NO:543:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:543:
GCTGAGATGG AGGGCG 16

(2) INFORMATION FOR SEQ ID NO:544:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:544:
GCTGAGATGG AGGGC 15

(2) INFORMATION FOR SEQ ID NO:545:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:545: 14
GCTGAGATGG AGGG

(2) INFORMATION FOR SEQ ID NO:546:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:546: 13
GCTGAGATGG AGG

(2) INFORMATION FOR SEQ ID NO:547:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:547: 12
GCTGAGATGG AG

(2) INFORMATION FOR SEQ ID NO:548:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:548: 11
GCTGAGATGG A

(2) INFORMATION FOR SEQ ID NO:549:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:549: 10
GCTGAGATGG

(2) INFORMATION FOR SEQ ID NO:550:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:550: 37
CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGG

(2) INFORMATION FOR SEQ ID NO:551:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:551: 36
CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGGG

(2) INFORMATION FOR SEQ ID NO:552:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:552: 35
CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTGG

(2) INFORMATION FOR SEQ ID NO:553:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:553:
 CTGAGATGGA GGGCGGCATG GCGGGCACAG GCTG 34

(2) INFORMATION FOR SEQ ID NO:554:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:554:
 CTGAGATGGA GGGCGGCATG GCGGGCACAG GCT 33

(2) INFORMATION FOR SEQ ID NO:555:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:555:
 CTGAGATGGA GGGCGGCATG GCGGGCACAG GC 32

(2) INFORMATION FOR SEQ ID NO:556:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:556:
 CTGAGATGGA GGGCGGCATG GCGGGCACAG G 31

(2) INFORMATION FOR SEQ ID NO:557:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:557:
 CTGAGATGGA GGGCGGCATG GCGGGCACAG 30

(2) INFORMATION FOR SEQ ID NO:558:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:558:
 CTGAGATGGA GGGCGGCATG GCGGGCACA 29

(2) INFORMATION FOR SEQ ID NO:559:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:559:
 CTGAGATGGA GGGCGGCATG GCGGGCAC 28

(2) INFORMATION FOR SEQ ID NO:560:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:560:
CTGAGATGGA GGGCGGCATG GCGGGCA 27

(2) INFORMATION FOR SEQ ID NO:561:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:561:
CTGAGATGGA GGGCGGCATG GCGGGC 26

(2) INFORMATION FOR SEQ ID NO:562:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:562:
CTGAGATGGA GGGCGGCATG GCGGG 25

(2) INFORMATION FOR SEQ ID NO:563:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:563:
CTGAGATGGA GGGCGGCATG GCGG 24

(2) INFORMATION FOR SEQ ID NO:564:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:564:
CTGAGATGGA GGGCGGCATG GCG 23

(2) INFORMATION FOR SEQ ID NO:565:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:565:
CTGAGATGGA GGGCGGCATG GC 22

(2) INFORMATION FOR SEQ ID NO:566:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:566:
CTGAGATGGA GGGCGGCATG G 21

(2) INFORMATION FOR SEQ ID NO:567:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:567:
CTGAGATGGA GGGCGGCATG 20

(2) INFORMATION FOR SEQ ID NO:568:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:568:
 CTGAGATGGA GGGCGGCAT 19

(2) INFORMATION FOR SEQ ID NO:569:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:569:
 CTGAGATGGA GGGCGGCA 18

(2) INFORMATION FOR SEQ ID NO:570:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:570:
 CTGAGATGGA GGGCGGC 17

(2) INFORMATION FOR SEQ ID NO:571:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:571:
 CTGAGATGGA GGGCGG 16

(2) INFORMATION FOR SEQ ID NO:572:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:572:
 CTGAGATGGA GGGCG 15

(2) INFORMATION FOR SEQ ID NO:573:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:573:
 CTGAGATGGA GGGC 14

(2) INFORMATION FOR SEQ ID NO:574:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:574:
 CTGAGATGGA GGG 13

(2) INFORMATION FOR SEQ ID NO:575:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:575:

CTGAGATGGA GG

12

(2) INFORMATION FOR SEQ ID NO:576:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:576:

CTGAGATGGA G

11

(2) INFORMATION FOR SEQ ID NO:577:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:577:

CTGAGATGGA

10

(2) INFORMATION FOR SEQ ID NO:578:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:578:

TGAGATGGAG GCGGCATGG CGGGCACAGG CTGGGC

36

(2) INFORMATION FOR SEQ ID NO:579:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:579:

TGAGATGGAG GCGGCATGG CGGGCACAGG CTGGG

35

(2) INFORMATION FOR SEQ ID NO:580:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 34 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:580:

TGAGATGGAG GCGGCATGG CGGGCACAGG CTGG

34

(2) INFORMATION FOR SEQ ID NO:581:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 33 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:581:

TGAGATGGAG GCGGCATGG CGGGCACAGG CTG

33

(2) INFORMATION FOR SEQ ID NO:582:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:582:

TGAGATGGAG GCGGCATGG CGGGCACAGG CT

32

(2) INFORMATION FOR SEQ ID NO:583:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:583:
 TGAGATGGAG GCGGCATGG CGGGCACAGG C 31

(2) INFORMATION FOR SEQ ID NO:584:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:584:
 TGAGATGGAG GCGGCATGG CGGGCACAGG 30

(2) INFORMATION FOR SEQ ID NO:585:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:585:
 TGAGATGGAG GCGGCATGG CGGGCACAG 29

(2) INFORMATION FOR SEQ ID NO:586:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:586:
 TGAGATGGAG GCGGCATGG CGGGCACA 28

(2) INFORMATION FOR SEQ ID NO:587:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:587:
 TGAGATGGAG GCGGCATGG CGGGCAC 27

(2) INFORMATION FOR SEQ ID NO:588:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:588:
 TGAGATGGAG GCGGCATGG CGGGCA 26

(2) INFORMATION FOR SEQ ID NO:589:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:589:
 TGAGATGGAG GCGGCATGG CGGGC 25

(2) INFORMATION FOR SEQ ID NO:590:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:590:
 TGAGATGGAG GCGGCATGG CGGG 24

(2) INFORMATION FOR SEQ ID NO:591:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:591:
 TGAGATGGAG GCGGCATGG CGG 23

(2) INFORMATION FOR SEQ ID NO:592:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:592:
 TGAGATGGAG GCGGCATGG CG 22

(2) INFORMATION FOR SEQ ID NO:593:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:593:
 TGAGATGGAG GCGGCATGG C 21

(2) INFORMATION FOR SEQ ID NO:594:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:594:
 TGAGATGGAG GCGGCATGG 20

(2) INFORMATION FOR SEQ ID NO:595:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:595:
 TGAGATGGAG GCGGCATG 19

(2) INFORMATION FOR SEQ ID NO:596:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:596:
 TGAGATGGAG GCGGCAT 18

(2) INFORMATION FOR SEQ ID NO:597:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:597:
 TGAGATGGAG GCGGCA 17

(2) INFORMATION FOR SEQ ID NO:598:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:598: 16
 TGAGATGGAG GGC GGC

(2) INFORMATION FOR SEQ ID NO:599:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:599: 15
 TGAGATGGAG GCGCG

(2) INFORMATION FOR SEQ ID NO:600:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:600: 14
 TGAGATGGAG GCGC

(2) INFORMATION FOR SEQ ID NO:601:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:601: 13
 TGAGATGGAG GGC

(2) INFORMATION FOR SEQ ID NO:602:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:602: 12
 TGAGATGGAG GG

(2) INFORMATION FOR SEQ ID NO:603:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:603: 11
 TGAGATGGAG G

(2) INFORMATION FOR SEQ ID NO:604:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:604: 10
 TGAGATGGAG

(2) INFORMATION FOR SEQ ID NO:605:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:605: 35
 GAGATGGAGG GCGGCATGGC GGGCACAGGC TGGGC

(2) INFORMATION FOR SEQ ID NO:606:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:606:
GAGATGGAGG GCGGCATGGC GGGCACAGGC TGGG 34

(2) INFORMATION FOR SEQ ID NO:607:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:607:
GAGATGGAGG GCGGCATGGC GGGCACAGGC TGG 33

(2) INFORMATION FOR SEQ ID NO:608:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:608:
GAGATGGAGG GCGGCATGGC GGGCACAGGC TG 32

(2) INFORMATION FOR SEQ ID NO:609:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:609:
GAGATGGAGG GCGGCATGGC GGGCACAGGC T 31

(2) INFORMATION FOR SEQ ID NO:610:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:610:
GAGATGGAGG GCGGCATGGC GGGCACAGGC 30

(2) INFORMATION FOR SEQ ID NO:611:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:611:
GAGATGGAGG GCGGCATGGC GGGCACAGG 29

(2) INFORMATION FOR SEQ ID NO:612:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:612:
GAGATGGAGG GCGGCATGGC GGGCACAG 28

(2) INFORMATION FOR SEQ ID NO:613:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:613:
GAGATGGAGG GCGGCATGGC GGGCACA 27

(2) INFORMATION FOR SEQ ID NO:614:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:614:
GAGATGGAGG GCGGCATGGC GGGCAC 26

(2) INFORMATION FOR SEQ ID NO:615:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:615:
GAGATGGAGG GCGGCATGGC GGGCA 25

(2) INFORMATION FOR SEQ ID NO:616:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:616:
GAGATGGAGG GCGGCATGGC GGGC 24

(2) INFORMATION FOR SEQ ID NO:617:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:617:
GAGATGGAGG GCGGCATGGC GGG 23

(2) INFORMATION FOR SEQ ID NO:618:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:618:
GAGATGGAGG GCGGCATGGC GG 22

(2) INFORMATION FOR SEQ ID NO:619:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:619:
GAGATGGAGG GCGGCATGGC G 21

(2) INFORMATION FOR SEQ ID NO:620:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:620:
GAGATGGAGG GCGGCATGGC 20

(2) INFORMATION FOR SEQ ID NO:621:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:621:
GAGATGGAGG GCGGCATGG 19

(2) INFORMATION FOR SEQ ID NO:622:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:622:
GAGATGGAGG GCGGCATG 18

(2) INFORMATION FOR SEQ ID NO:623:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:623:
GAGATGGAGG GCGGCAT 17

(2) INFORMATION FOR SEQ ID NO:624:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:624:
GAGATGGAGG GCGGCA 16

(2) INFORMATION FOR SEQ ID NO:625:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:625:
GAGATGGAGG GCGGC 15

(2) INFORMATION FOR SEQ ID NO:626:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:626:
GAGATGGAGG GCGG 14

(2) INFORMATION FOR SEQ ID NO:627:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:627:
GAGATGGAGG GCG 13

(2) INFORMATION FOR SEQ ID NO:628:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:628:
GAGATGGAGG GC 12

(2) INFORMATION FOR SEQ ID NO:629:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:629:
GAGATGGAGG G 11

(2) INFORMATION FOR SEQ ID NO:630:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:630:
GAGATGGAGG 10

(2) INFORMATION FOR SEQ ID NO:631:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:631:
AGATGGAGGG CGGCATGGCG GGCACAGGCT GGGC 34

(2) INFORMATION FOR SEQ ID NO:632:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:632:
AGATGGAGGG CGGCATGGCG GGCACAGGCT GGG 33

(2) INFORMATION FOR SEQ ID NO:633:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:633:
AGATGGAGGG CGGCATGGCG GGCACAGGCT GG 32

(2) INFORMATION FOR SEQ ID NO:634:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:634:
AGATGGAGGG CGGCATGGCG GGCACAGGCT G 31

(2) INFORMATION FOR SEQ ID NO:635:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:635:
AGATGGAGGG CGGCATGGCG GGCACAGGCT 30

(2) INFORMATION FOR SEQ ID NO:636:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:636:
 AGATGGAGGG CGGCATGGCG GGCACAGG 29

(2) INFORMATION FOR SEQ ID NO:637:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:637:
 AGATGGAGGG CGGCATGGCG GGCACAGG 28

(2) INFORMATION FOR SEQ ID NO:638:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:638:
 AGATGGAGGG CGGCATGGCG GGCACAG 27

(2) INFORMATION FOR SEQ ID NO:639:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:639:
 AGATGGAGGG CGGCATGGCG GGCACA 26

(2) INFORMATION FOR SEQ ID NO:640:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:640:
 AGATGGAGGG CGGCATGGCG GGCAC 25

(2) INFORMATION FOR SEQ ID NO:641:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:641:
 AGATGGAGGG CGGCATGGCG GGCA 24

(2) INFORMATION FOR SEQ ID NO:642:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:642:
 AGATGGAGGG CGGCATGGCG GGC 23

(2) INFORMATION FOR SEQ ID NO:643:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:643:
AGATGGAGGG CGGCATGGCG GG 22

(2) INFORMATION FOR SEQ ID NO:644:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:644:
AGATGGAGGG CGGCATGGCG G 21

(2) INFORMATION FOR SEQ ID NO:645:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:645:
AGATGGAGGG CGGCATGGCG 20

(2) INFORMATION FOR SEQ ID NO:646:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:646:
AGATGGAGGG CGGCATGGC 19

(2) INFORMATION FOR SEQ ID NO:647:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:647:
AGATGGAGGG CGGCATGG 18

(2) INFORMATION FOR SEQ ID NO:648:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:648:
AGATGGAGGG CGGCATG 17

(2) INFORMATION FOR SEQ ID NO:649:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:649:
AGATGGAGGG CGGCAT 16

(2) INFORMATION FOR SEQ ID NO:650:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:650:
AGATGGAGGG CGGCA 15

(2) INFORMATION FOR SEQ ID NO:651:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:651: 14
 AGATGGAGGG CGGC

(2) INFORMATION FOR SEQ ID NO:652:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:652: 13
 AGATGGAGGG CGG

(2) INFORMATION FOR SEQ ID NO:653:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:653: 12
 AGATGGAGGG CG

(2) INFORMATION FOR SEQ ID NO:654:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:654: 11
 AGATGGAGGG C

(2) INFORMATION FOR SEQ ID NO:655:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:655: 10
 AGATGGAGGG

(2) INFORMATION FOR SEQ ID NO:656:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:656: 33
 GATGGAGGGC GGCATGGCGG GCACAGGCTG GGC

(2) INFORMATION FOR SEQ ID NO:657:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:657: 32
 GATGGAGGGC GGCATGGCGG GCACAGGCTG GG

(2) INFORMATION FOR SEQ ID NO:658:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:658:

GATGGAGGGC GGCATGGCGG GCACAGGCTG G

31

(2) INFORMATION FOR SEQ ID NO:659:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:659:

GATGGAGGGC GGCATGGCGG GCACAGGCTG

30

(2) INFORMATION FOR SEQ ID NO:660:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 29 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:660:

GATGGAGGGC GGCATGGCGG GCACAGGCT

29

(2) INFORMATION FOR SEQ ID NO:661:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:661:

GATGGAGGGC GGCATGGCGG GCACAGGC

28

(2) INFORMATION FOR SEQ ID NO:662:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:662:

GATGGAGGGC GGCATGGCGG GCACAGG

27

(2) INFORMATION FOR SEQ ID NO:663:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:663:

GATGGAGGGC GGCATGGCGG GCACAG

26

(2) INFORMATION FOR SEQ ID NO:664:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:664:

GATGGAGGGC GGCATGGCGG GCACA

25

(2) INFORMATION FOR SEQ ID NO:665:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:665:

GATGGAGGGC GGCATGGCGG GCAC

24

(2) INFORMATION FOR SEQ ID NO:666:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:666:
GATGGAGGGC GGCATGGCGG GCA 23

(2) INFORMATION FOR SEQ ID NO:667:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:667:
GATGGAGGGC GGCATGGCGG GC 22

(2) INFORMATION FOR SEQ ID NO:668:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:668:
GATGGAGGGC GGCATGGCGG G 21

(2) INFORMATION FOR SEQ ID NO:669:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:669:
GATGGAGGGC GGCATGGCGG 20

(2) INFORMATION FOR SEQ ID NO:670:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:670:
GATGGAGGGC GGCATGGCG 19

(2) INFORMATION FOR SEQ ID NO:671:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:671:
GATGGAGGGC GGCATGGC 18

(2) INFORMATION FOR SEQ ID NO:672:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:672:
GATGGAGGGC GGCATGG 17

(2) INFORMATION FOR SEQ ID NO:673:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:673:
GATGGAGGGC GGCATG 16

(2) INFORMATION FOR SEQ ID NO:674:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:674:
 GATGGAGGGC GGCAT 15

(2) INFORMATION FOR SEQ ID NO:675:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:675:
 GATGGAGGGC GGC A 14

(2) INFORMATION FOR SEQ ID NO:676:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:676:
 GATGGAGGGC GGC 13

(2) INFORMATION FOR SEQ ID NO:677:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:677:
 GATGGAGGGC GG 12

(2) INFORMATION FOR SEQ ID NO:678:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:678:
 GATGGAGGGC G 11

(2) INFORMATION FOR SEQ ID NO:679:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:679:
 GATGGAGGGC 10

(2) INFORMATION FOR SEQ ID NO:680:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:680:
 ATGGAGGGCG GCATGGCGGG CACAGGCTGG GC 32

(2) INFORMATION FOR SEQ ID NO:681:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:681:
 ATGGAGGGCG GCATGGCGGG CACAGGCTGG G 31

(2) INFORMATION FOR SEQ ID NO:682:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:682:
 ATGGAGGGCG GCATGGCGGG CACAGGCTGG 30

(2) INFORMATION FOR SEQ ID NO:683:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:683:
 ATGGAGGGCG GCATGGCGGG CACAGGCTG 29

(2) INFORMATION FOR SEQ ID NO:684:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:684:
 ATGGAGGGCG GCATGGCGGG CACAGGCT 28

(2) INFORMATION FOR SEQ ID NO:685:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:685:
 ATGGAGGGCG GCATGGCGGG CACAGGC 27

(2) INFORMATION FOR SEQ ID NO:686:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:686:
 ATGGAGGGCG GCATGGCGGG CACAGG 26

(2) INFORMATION FOR SEQ ID NO:687:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:687:
 ATGGAGGGCG GCATGGCGGG CACAG 25

(2) INFORMATION FOR SEQ ID NO:688:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:688:
 ATGGAGGGCG GCATGGCGGG CACA 24

(2) INFORMATION FOR SEQ ID NO:689:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:689:
 ATGGAGGGCG GCATGGCGGG CAC 23

(2) INFORMATION FOR SEQ ID NO:690:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:690:
 ATGGAGGGCG GCATGGCGGG CA 22

(2) INFORMATION FOR SEQ ID NO:691:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:691:
 ATGGAGGGCG GCATGGCGGG C 21

(2) INFORMATION FOR SEQ ID NO:692:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:692:
 ATGGAGGGCG GCATGGCGGG 20

(2) INFORMATION FOR SEQ ID NO:693:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:693:
 ATGGAGGGCG GCATGGCGG 19

(2) INFORMATION FOR SEQ ID NO:694:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:694:
 ATGGAGGGCG GCATGGCG 18

(2) INFORMATION FOR SEQ ID NO:695:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:695:
 ATGGAGGGCG GCATGGC 17

(2) INFORMATION FOR SEQ ID NO:696:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:696:
ATGGAGGGCG GCATGG 16

(2) INFORMATION FOR SEQ ID NO:697:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:697:
ATGGAGGGCG GCATG 15

(2) INFORMATION FOR SEQ ID NO:698:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:698:
ATGGAGGGCG GCAT 14

(2) INFORMATION FOR SEQ ID NO:699:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:699:
ATGGAGGGCG GCA 13

(2) INFORMATION FOR SEQ ID NO:700:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:700:
ATGGAGGGCG GC 12

(2) INFORMATION FOR SEQ ID NO:701:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:701:
ATGGAGGGCG G 11

(2) INFORMATION FOR SEQ ID NO:702:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:702:
ATGGAGGGCG 10

(2) INFORMATION FOR SEQ ID NO:703:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:703:
TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C 31

(2) INFORMATION FOR SEQ ID NO:704:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:704:
 TGGAGGGCGG CATGGCGGGC ACAGGCTGGG 30

(2) INFORMATION FOR SEQ ID NO:705:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:705:
 TGGAGGGCGG CATGGCGGGC ACAGGCTGG 29

(2) INFORMATION FOR SEQ ID NO:706:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:706:
 TGGAGGGCGG CATGGCGGGC ACAGGCTG 28

(2) INFORMATION FOR SEQ ID NO:707:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:707:
 TGGAGGGCGG CATGGCGGGC ACAGGCT 27

(2) INFORMATION FOR SEQ ID NO:708:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:708:
 TGGAGGGCGG CATGGCGGGC ACAGGC 26

(2) INFORMATION FOR SEQ ID NO:709:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:709:
 TGGAGGGCGG CATGGCGGGC ACAGG 25

(2) INFORMATION FOR SEQ ID NO:710:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:710:
 TGGAGGGCGG CATGGCGGGC ACAG 24

(2) INFORMATION FOR SEQ ID NO:711:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:711:
TGGAGGGCGG CATGGCGGGC ACA 23

(2) INFORMATION FOR SEQ ID NO:712:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:712:
TGGAGGGCGG CATGGCGGGC AC 22

(2) INFORMATION FOR SEQ ID NO:713:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:713:
TGGAGGGCGG CATGGCGGGC A 21

(2) INFORMATION FOR SEQ ID NO:714:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:714:
TGGAGGGCGG CATGGCGGGC 20

(2) INFORMATION FOR SEQ ID NO:715:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:715:
TGGAGGGCGG CATGGCGGG 19

(2) INFORMATION FOR SEQ ID NO:716:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:716:
TGGAGGGCGG CATGGCGG 18

(2) INFORMATION FOR SEQ ID NO:717:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:717:
TGGAGGGCGG CATGGCG 17

(2) INFORMATION FOR SEQ ID NO:718:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:718:
TGGAGGGCGG CATGGC 16

(2) INFORMATION FOR SEQ ID NO:719:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:719:
 TGGAGGGCGG CATGG 15

(2) INFORMATION FOR SEQ ID NO:720:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:720:
 TGGAGGGCGG CATG 14

(2) INFORMATION FOR SEQ ID NO:721:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:721:
 TGGAGGGCGG CAT 13

(2) INFORMATION FOR SEQ ID NO:722:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:722:
 TGGAGGGCGG CA 12

(2) INFORMATION FOR SEQ ID NO:723:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:723:
 TGGAGGGCGG C 11

(2) INFORMATION FOR SEQ ID NO:724:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:724:
 TGGAGGGCGG 10

(2) INFORMATION FOR SEQ ID NO:725:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:725:
 GGAGGGCGGC ATGGCGGGCA CAGGCTGGGC 30

(2) INFORMATION FOR SEQ ID NO:726:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:726:

GGAGGGCGGC ATGGCGGGCA CAGGCTGGG

29

(2) INFORMATION FOR SEQ ID NO:727:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:727:

GGAGGGCGGC ATGGCGGGCA CAGGCTGG

28

(2) INFORMATION FOR SEQ ID NO:728:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:728:

GGAGGGCGGC ATGGCGGGCA CAGGCTG

27

(2) INFORMATION FOR SEQ ID NO:729:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:729:

GGAGGGCGGC ATGGCGGGCA CAGGCT

26

(2) INFORMATION FOR SEQ ID NO:730:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:730:

GGAGGGCGGC ATGGCGGGCA CAGGC

25

(2) INFORMATION FOR SEQ ID NO:731:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:731:

GGAGGGCGGC ATGGCGGGCA CAGG

24

(2) INFORMATION FOR SEQ ID NO:732:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:732:

GGAGGGCGGC ATGGCGGGCA CAG

23

(2) INFORMATION FOR SEQ ID NO:733:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:733:

GGAGGGCGGC ATGGCGGGCA CA

22

(2) INFORMATION FOR SEQ ID NO:734:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:734:
 GGAGGGCGGC ATGGCGGGCA C 21

(2) INFORMATION FOR SEQ ID NO:735:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:735:
 GGAGGGCGGC ATGGCGGGCA 20

(2) INFORMATION FOR SEQ ID NO:736:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:736:
 GGAGGGCGGC ATGGCGGGC 19

(2) INFORMATION FOR SEQ ID NO:737:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:737:
 GGAGGGCGGC ATGGCGGG 18

(2) INFORMATION FOR SEQ ID NO:738:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:738:
 GGAGGGCGGC ATGGCGG 17

(2) INFORMATION FOR SEQ ID NO:739:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:739:
 GGAGGGCGGC ATGGCG 16

(2) INFORMATION FOR SEQ ID NO:740:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:740:
 GGAGGGCGGC ATGGC 15

(2) INFORMATION FOR SEQ ID NO:741:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:741:
 GGAGGGCGGC ATGG 14

(2) INFORMATION FOR SEQ ID NO:742:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:742:
GGAGGGCGGC ATG 13

(2) INFORMATION FOR SEQ ID NO:743:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:743:
GGAGGGCGGC AT 12

(2) INFORMATION FOR SEQ ID NO:744:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:744:
GGAGGGCGGC A 11

(2) INFORMATION FOR SEQ ID NO:745:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:745:
GGAGGGCGGC 10

(2) INFORMATION FOR SEQ ID NO:746:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:746:
GAGGGCGGCA TGGCGGGCAC AGGCTGGGC 29

(2) INFORMATION FOR SEQ ID NO:747:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:747:
GAGGGCGGCA TGGCGGGCAC AGGCTGGG 28

(2) INFORMATION FOR SEQ ID NO:748:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:748:
GAGGGCGGCA TGGCGGGCAC AGGCTGG 27

(2) INFORMATION FOR SEQ ID NO:749:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:749:
 GAGGGCGGCA TGGCGGGCAC AGGCTG 26

(2) INFORMATION FOR SEQ ID NO:750:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:750:
 GAGGGCGGCA TGGCGGGCAC AGGCT 25

(2) INFORMATION FOR SEQ ID NO:751:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:751:
 GAGGGCGGCA TGGCGGGCAC AGGC 24

(2) INFORMATION FOR SEQ ID NO:752:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:752:
 GAGGGCGGCA TGGCGGGCAC AGG 23

(2) INFORMATION FOR SEQ ID NO:753:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:753:
 GAGGGCGGCA TGGCGGGCAC AG 22

(2) INFORMATION FOR SEQ ID NO:754:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:754:
 GAGGGCGGCA TGGCGGGCAC A 21

(2) INFORMATION FOR SEQ ID NO:755:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:755:
 GAGGGCGGCA TGGCGGGCAC 20

(2) INFORMATION FOR SEQ ID NO:756:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:756:
 GAGGGCGGCA TGGCGGGCA 19

(2) INFORMATION FOR SEQ ID NO:757:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:757:
 GAGGGCGGCA TGGCGGGC 18

(2) INFORMATION FOR SEQ ID NO:758:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:758:
 GAGGGCGGCA TGGCGGG 17

(2) INFORMATION FOR SEQ ID NO:759:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:759:
 GAGGGCGGCA TGGCGG 16

(2) INFORMATION FOR SEQ ID NO:760:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:760:
 GAGGGCGGCA TGGCG 15

(2) INFORMATION FOR SEQ ID NO:761:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:761:
 GAGGGCGGCA TGGC 14

(2) INFORMATION FOR SEQ ID NO:762:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:762:
 GAGGGCGGCA TGG 13

(2) INFORMATION FOR SEQ ID NO:763:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:763:
 GAGGGCGGCA TG 12

(2) INFORMATION FOR SEQ ID NO:764:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:764:

GAGGGCGGCA T 11

(2) INFORMATION FOR SEQ ID NO:765:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:765:

GAGGGCGGCA 10

(2) INFORMATION FOR SEQ ID NO:766:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:766:

AGGGCGGCAT GCGGGGCACA GGCTGGGC 28

(2) INFORMATION FOR SEQ ID NO:767:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:767:

AGGGCGGCAT GCGGGGCACA GGCTGGG 27

(2) INFORMATION FOR SEQ ID NO:768:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:768:

AGGGCGGCAT GCGGGGCACA GGCTGG 26

(2) INFORMATION FOR SEQ ID NO:769:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:769:

AGGGCGGCAT GCGGGGCACA GGCTG 25

(2) INFORMATION FOR SEQ ID NO:770:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:770:

AGGGCGGCAT GCGGGGCACA GGCT 24

(2) INFORMATION FOR SEQ ID NO:771:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:771:

AGGGCGGCAT GCGGGGCACA GGC 23

(2) INFORMATION FOR SEQ ID NO:772:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:772:
 AGGGCGGCAT GCGGGCACA GG 22

(2) INFORMATION FOR SEQ ID NO:773:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:773:
 AGGGCGGCAT GCGGGCACA G 21

(2) INFORMATION FOR SEQ ID NO:774:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:774:
 AGGGCGGCAT GCGGGCACA 20

(2) INFORMATION FOR SEQ ID NO:775:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:775:
 AGGGCGGCAT GCGGGCAC 19

(2) INFORMATION FOR SEQ ID NO:776:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:776:
 AGGGCGGCAT GCGGGCA 18

(2) INFORMATION FOR SEQ ID NO:777:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:777:
 AGGGCGGCAT GCGGGC 17

(2) INFORMATION FOR SEQ ID NO:778:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:778:
 AGGGCGGCAT GCGGG 16

(2) INFORMATION FOR SEQ ID NO:779:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:779:
AGGGCGGCAT GGCGG 15

(2) INFORMATION FOR SEQ ID NO:780:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:780:
AGGGCGGCAT GGCG 14

(2) INFORMATION FOR SEQ ID NO:781:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:781:
AGGGCGGCAT GGC 13

(2) INFORMATION FOR SEQ ID NO:782:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:782:
AGGGCGGCAT GG 12

(2) INFORMATION FOR SEQ ID NO:783:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:783:
AGGGCGGCAT G 11

(2) INFORMATION FOR SEQ ID NO:784:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:784:
AGGGCGGCAT 10

(2) INFORMATION FOR SEQ ID NO:785:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:785:
GGGCGGCATG GCGGGCACAG GCTGGGC 27

(2) INFORMATION FOR SEQ ID NO:786:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:786:
GGGCGGCATG GCGGGCACAG GCTGGG 26

(2) INFORMATION FOR SEQ ID NO:787:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:787:
 GGGCGGCATG GCGGGCACAG GCTGG 25

(2) INFORMATION FOR SEQ ID NO:788:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:788:
 GGGCGGCATG GCGGGCACAG GCTG 24

(2) INFORMATION FOR SEQ ID NO:789:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:789:
 GGGCGGCATG GCGGGCACAG GCT 23

(2) INFORMATION FOR SEQ ID NO:790:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:790:
 GGGCGGCATG GCGGGCACAG GC 22

(2) INFORMATION FOR SEQ ID NO:791:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:791:
 GGGCGGCATG GCGGGCACAG G 21

(2) INFORMATION FOR SEQ ID NO:792:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:792:
 GGGCGGCATG GCGGGCACAG 20

(2) INFORMATION FOR SEQ ID NO:793:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:793:
 GGGCGGCATG GCGGGCACA 19

(2) INFORMATION FOR SEQ ID NO:794:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:794:

GGGCGGCATG GCGGGCAC

18

(2) INFORMATION FOR SEQ ID NO:795:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:795:

GGGCGGCATG GCGGGCA

17

(2) INFORMATION FOR SEQ ID NO:796:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:796:

GGGCGGCATG GCGGGC

16

(2) INFORMATION FOR SEQ ID NO:797:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:797:

GGGCGGCATG GCGGG

15

(2) INFORMATION FOR SEQ ID NO:798:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:798:

GGGCGGCATG GCGG

14

(2) INFORMATION FOR SEQ ID NO:799:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:799:

GGGCGGCATG GCG

13

(2) INFORMATION FOR SEQ ID NO:800:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:800:

GGGCGGCATG GC

12

(2) INFORMATION FOR SEQ ID NO:801:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:801:

GGGCGGCATG G

11

(2) INFORMATION FOR SEQ ID NO:802:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:802:
 GGCGGCATG 10

(2) INFORMATION FOR SEQ ID NO:803:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:803:
 GGCGGCATGG CGGGCACAGG CTGGGC 26

(2) INFORMATION FOR SEQ ID NO:804:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:804:
 GGCGGCATGG CGGGCACAGG CTGGG 25

(2) INFORMATION FOR SEQ ID NO:805:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:805:
 GGCGGCATGG CGGGCACAGG CTGG 24

(2) INFORMATION FOR SEQ ID NO:806:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:806:
 GGCGGCATGG CGGGCACAGG CTG 23

(2) INFORMATION FOR SEQ ID NO:807:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:807:
 GGCGGCATGG CGGGCACAGG CT 22

(2) INFORMATION FOR SEQ ID NO:808:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:808:
 GGCGGCATGG CGGGCACAGG C 21

(2) INFORMATION FOR SEQ ID NO:809:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:809:
 GGCGGCATGG CGGGCACAGG 20

(2) INFORMATION FOR SEQ ID NO:810:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:810:
GGCGGCATGG CGGGCACAG 19

(2) INFORMATION FOR SEQ ID NO:811:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:811:
GGCGGCATGG CGGGCACA 18

(2) INFORMATION FOR SEQ ID NO:812:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:812:
GGCGGCATGG CGGGCAC 17

(2) INFORMATION FOR SEQ ID NO:813:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:813:
GGCGGCATGG CGGGCA 16

(2) INFORMATION FOR SEQ ID NO:814:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:814:
GGCGGCATGG CGGGC 15

(2) INFORMATION FOR SEQ ID NO:815:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:815:
GGCGGCATGG CGGG 14

(2) INFORMATION FOR SEQ ID NO:816:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:816:
GGCGGCATGG CGG 13

(2) INFORMATION FOR SEQ ID NO:817:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:817:
GGCGGCATGG CG 12

(2) INFORMATION FOR SEQ ID NO:818:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:818:
GGCGGCATGG C 11

(2) INFORMATION FOR SEQ ID NO:819:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:819:
GGCGGCATGG 10

(2) INFORMATION FOR SEQ ID NO:820:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:820:
GCGGCATGGC GGGCACAGGC TGGGC 25

(2) INFORMATION FOR SEQ ID NO:821:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:821:
GCGGCATGGC GGGCACAGGC TGGG 24

(2) INFORMATION FOR SEQ ID NO:822:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:822:
GCGGCATGGC GGGCACAGGC TGG 23

(2) INFORMATION FOR SEQ ID NO:823:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:823:
GCGGCATGGC GGGCACAGGC TG 22

(2) INFORMATION FOR SEQ ID NO:824:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:824:
GCGGCATGGC GGGCACAGGC T 21

(2) INFORMATION FOR SEQ ID NO:825:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:825:
GCGGCATGGC GGGCACAGGC 20

(2) INFORMATION FOR SEQ ID NO:826:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:826:
GCGGCATGGC GGGCACAGG 19

(2) INFORMATION FOR SEQ ID NO:827:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:827:
GCGGCATGGC GGGCACAG 18

(2) INFORMATION FOR SEQ ID NO:828:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:828:
GCGGCATGGC GGGCACA 17

(2) INFORMATION FOR SEQ ID NO:829:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:829:
GCGGCATGGC GGGCAC 16

(2) INFORMATION FOR SEQ ID NO:830:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:830:
GCGGCATGGC GGGCA 15

(2) INFORMATION FOR SEQ ID NO:831:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:831:
GCGGCATGGC GGGC 14

(2) INFORMATION FOR SEQ ID NO:832:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:832:
GCGGCATGGC GGG 13

(2) INFORMATION FOR SEQ ID NO:833:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:833:
GCGGCATGGC GG 12

(2) INFORMATION FOR SEQ ID NO:834:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:834:
GCGGCATGGC G 11

(2) INFORMATION FOR SEQ ID NO:835:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:835:
GCGGCATGGC 10

(2) INFORMATION FOR SEQ ID NO:836:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:836:
CGGCATGGCG GGCACAGGCT GGGC 24

(2) INFORMATION FOR SEQ ID NO:837:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:837:
CGGCATGGCG GGCACAGGCT GGG 23

(2) INFORMATION FOR SEQ ID NO:838:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:838:
CGGCATGGCG GGCACAGGCT GG 22

(2) INFORMATION FOR SEQ ID NO:839:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:839:
CGGCATGGCG GGCACAGGCT G 21

(2) INFORMATION FOR SEQ ID NO:840:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:840:
 CGGCATGGCG GGCACAGGCT 20

(2) INFORMATION FOR SEQ ID NO:841:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:841:
 CGGCATGGCG GGCACAGGC 19

(2) INFORMATION FOR SEQ ID NO:842:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:842:
 CGGCATGGCG GGCACAGG 18

(2) INFORMATION FOR SEQ ID NO:843:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:843:
 CGGCATGGCG GGCACAG 17

(2) INFORMATION FOR SEQ ID NO:844:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:844:
 CGGCATGGCG GGCACA 16

(2) INFORMATION FOR SEQ ID NO:845:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:845:
 CGGCATGGCG GGCAC 15

(2) INFORMATION FOR SEQ ID NO:846:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:846:
 CGGCATGGCG GGCA 14

(2) INFORMATION FOR SEQ ID NO:847:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:847:
CGGCATGGCG GGC 13

(2) INFORMATION FOR SEQ ID NO:848:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:848:
CGGCATGGCG GG 12

(2) INFORMATION FOR SEQ ID NO:849:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:849:
CGGCATGGCG G 11

(2) INFORMATION FOR SEQ ID NO:850:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:850:
CGGCATGGCG 10

(2) INFORMATION FOR SEQ ID NO:851:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:851:
GGCATGGCGG GCACAGGCTG GGC 23

(2) INFORMATION FOR SEQ ID NO:852:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:852:
GGCATGGCGG GCACAGGCTG GG 22

(2) INFORMATION FOR SEQ ID NO:853:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:853:
GGCATGGCGG GCACAGGCTG G 21

(2) INFORMATION FOR SEQ ID NO:854:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:854:
GGCATGGCGG GCACAGGCTG 20

(2) INFORMATION FOR SEQ ID NO:855:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:855:
 GGCATGGCGG GCACAGGCT 19

(2) INFORMATION FOR SEQ ID NO:856:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:856:
 GGCATGGCGG GCACAGGC 18

(2) INFORMATION FOR SEQ ID NO:857:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:857:
 GGCATGGCGG GCACAGG 17

(2) INFORMATION FOR SEQ ID NO:858:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:858:
 GGCATGGCGG GCACAG 16

(2) INFORMATION FOR SEQ ID NO:859:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:859:
 GGCATGGCGG GCACA 15

(2) INFORMATION FOR SEQ ID NO:860:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:860:
 GGCATGGCGG GCAC 14

(2) INFORMATION FOR SEQ ID NO:861:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:861:
 GGCATGGCGG GCA 13

(2) INFORMATION FOR SEQ ID NO:862:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:862:

GGCATGGCGG GC

12

(2) INFORMATION FOR SEQ ID NO:863:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:863:

GGCATGGCGG G

11

(2) INFORMATION FOR SEQ ID NO:864:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:864:

GGCATGGCGG

10

(2) INFORMATION FOR SEQ ID NO:865:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:865:

GCATGGCGGG CACAGGCTGG GC

22

(2) INFORMATION FOR SEQ ID NO:866:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:866:

GCATGGCGGG CACAGGCTGG G

21

(2) INFORMATION FOR SEQ ID NO:867:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:867:

GCATGGCGGG CACAGGCTGG

20

(2) INFORMATION FOR SEQ ID NO:868:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:868:

GCATGGCGGG CACAGGCTG

19

(2) INFORMATION FOR SEQ ID NO:869:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:869:

GCATGGCGGG CACAGGCT

18

(2) INFORMATION FOR SEQ ID NO:870:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:870:
 GCATGGCGGG CACAGGC 17

(2) INFORMATION FOR SEQ ID NO:871:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:871:
 GCATGGCGGG CACAGG 16

(2) INFORMATION FOR SEQ ID NO:872:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:872:
 GCATGGCGGG CACAG 15

(2) INFORMATION FOR SEQ ID NO:873:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:873:
 GCATGGCGGG CACA 14

(2) INFORMATION FOR SEQ ID NO:874:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:874:
 GCATGGCGGG CAC 13

(2) INFORMATION FOR SEQ ID NO:875:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:875:
 GCATGGCGGG CA 12

(2) INFORMATION FOR SEQ ID NO:876:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:876:
 GCATGGCGGG C 11

(2) INFORMATION FOR SEQ ID NO:877:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:877:
 GCATGGCGGG 10

(2) INFORMATION FOR SEQ ID NO:878:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:878:
CATGGCGGGC ACAGGCTGGG C 21

(2) INFORMATION FOR SEQ ID NO:879:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:879:
CATGGCGGGC ACAGGCTGGG 20

(2) INFORMATION FOR SEQ ID NO:880:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:880:
CATGGCGGGC ACAGGCTGG 19

(2) INFORMATION FOR SEQ ID NO:881:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:881:
CATGGCGGGC ACAGGCTG 18

(2) INFORMATION FOR SEQ ID NO:882:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:882:
CATGGCGGGC ACAGGCT 17

(2) INFORMATION FOR SEQ ID NO:883:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:883:
CATGGCGGGC ACAGGC 16

(2) INFORMATION FOR SEQ ID NO:884:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:884:
CATGGCGGGC ACAGG 15

(2) INFORMATION FOR SEQ ID NO:885:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:885: 14
CATGGCGGGC ACAG

(2) INFORMATION FOR SEQ ID NO:886:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:886: 13
CATGGCGGGC ACA

(2) INFORMATION FOR SEQ ID NO:887:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:887: 12
CATGGCGGGC AC

(2) INFORMATION FOR SEQ ID NO:888:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:888: 11
CATGGCGGGC A

(2) INFORMATION FOR SEQ ID NO:889:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:889: 10
CATGGCGGGC

(2) INFORMATION FOR SEQ ID NO:890:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:890: 20
ATGGCGGGCA CAGGCTGGGC

(2) INFORMATION FOR SEQ ID NO:891:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:891: 19
ATGGCGGGCA CAGGCTGGG

(2) INFORMATION FOR SEQ ID NO:892:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:892: 18
ATGGCGGGCA CAGGCTGG

(2) INFORMATION FOR SEQ ID NO:893:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:893:
 ATGGCGGGCA CAGGCTG 17

(2) INFORMATION FOR SEQ ID NO:894:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:894:
 ATGGCGGGCA CAGGCT 16

(2) INFORMATION FOR SEQ ID NO:895:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:895:
 ATGGCGGGCA CAGGC 15

(2) INFORMATION FOR SEQ ID NO:896:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:896:
 ATGGCGGGCA CAGG 14

(2) INFORMATION FOR SEQ ID NO:897:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:897:
 ATGGCGGGCA CAG 13

(2) INFORMATION FOR SEQ ID NO:898:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:898:
 ATGGCGGGCA CA 12

(2) INFORMATION FOR SEQ ID NO:899:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:899:
 ATGGCGGGCA C 11

(2) INFORMATION FOR SEQ ID NO:900:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:900:
ATGGCGGGCA 10

(2) INFORMATION FOR SEQ ID NO:901:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:901:
TGGCGGGCAC AGGCTGGGC 19

(2) INFORMATION FOR SEQ ID NO:902:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:902:
TGGCGGGCAC AGGCTGGG 18

(2) INFORMATION FOR SEQ ID NO:903:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:903:
TGGCGGGCAC AGGCTGG 17

(2) INFORMATION FOR SEQ ID NO:904:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:904:
TGGCGGGCAC AGGCTG 16

(2) INFORMATION FOR SEQ ID NO:905:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:905:
TGGCGGGCAC AGGCT 15

(2) INFORMATION FOR SEQ ID NO:906:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:906:
TGGCGGGCAC AGGC 14

(2) INFORMATION FOR SEQ ID NO:907:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:907:
TGGCGGGCAC AGG 13

(2) INFORMATION FOR SEQ ID NO:908:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:908:
 TGGCGGGCAC AG 12

(2) INFORMATION FOR SEQ ID NO:909:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:909:
 TGGCGGGCAC A 11

(2) INFORMATION FOR SEQ ID NO:910:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:910:
 TGGCGGGCAC 10

(2) INFORMATION FOR SEQ ID NO:911:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:911:
 GGCGGGCACA GGCTGGGC 18

(2) INFORMATION FOR SEQ ID NO:912:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:912:
 GGCGGGCACA GGCTGGG 17

(2) INFORMATION FOR SEQ ID NO:913:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:913:
 GGCGGGCACA GGCTGG 16

(2) INFORMATION FOR SEQ ID NO:914:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:914:
 GGCGGGCACA GGCTG 15

(2) INFORMATION FOR SEQ ID NO:915:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:915:
GGCGGGCACA GGCT 14

(2) INFORMATION FOR SEQ ID NO:916:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:916:
GGCGGGCACA GGC 13

(2) INFORMATION FOR SEQ ID NO:917:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:917:
GGCGGGCACA GG 12

(2) INFORMATION FOR SEQ ID NO:918:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:918:
GGCGGGCACA G 11

(2) INFORMATION FOR SEQ ID NO:919:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:919:
GGCGGGCACA 10

(2) INFORMATION FOR SEQ ID NO:920:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:920:
GCGGGCACAG GCTGGGC 17

(2) INFORMATION FOR SEQ ID NO:921:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:921:
GCGGGCACAG GCTGGG 16

(2) INFORMATION FOR SEQ ID NO:922:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:922:
GCGGGCACAG GCTGG 15

(2) INFORMATION FOR SEQ ID NO:923:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:923:
 GCGGGCACAG GCTG 14

(2) INFORMATION FOR SEQ ID NO:924:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:924:
 GCGGGCACAG GCT 13

(2) INFORMATION FOR SEQ ID NO:925:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:925:
 GCGGGCACAG GC 12

(2) INFORMATION FOR SEQ ID NO:926:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:926:
 GCGGGCACAG G 11

(2) INFORMATION FOR SEQ ID NO:927:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:927:
 GCGGGCACAG 10

(2) INFORMATION FOR SEQ ID NO:928:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:928:
 CGGGCACAGG CTGGGC 16

(2) INFORMATION FOR SEQ ID NO:929:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:929:
 GGGCACAGGC TGGG 14

(2) INFORMATION FOR SEQ ID NO:930:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:930:
CGGGCACAGG CTGG 14

(2) INFORMATION FOR SEQ ID NO:931:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:931:
CGGGCACAGG CTG 13

(2) INFORMATION FOR SEQ ID NO:932:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:932:
CGGGCACAGG CT 12

(2) INFORMATION FOR SEQ ID NO:933:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:933:
CGGGCACAGG C 11

(2) INFORMATION FOR SEQ ID NO:934:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:934:
CGGGCACAGG 10

(2) INFORMATION FOR SEQ ID NO:935:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:935:
GGGCACAGGC TGGGC 15

(2) INFORMATION FOR SEQ ID NO:936:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:936:
GGGCACAGGC TGGG 14

(2) INFORMATION FOR SEQ ID NO:937:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:937:
GGGCACAGGC TGG 13

(2) INFORMATION FOR SEQ ID NO:938:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:938:
 GGGCACAGGC TG 12

(2) INFORMATION FOR SEQ ID NO:939:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:939:
 GGGCACAGGC T 11

(2) INFORMATION FOR SEQ ID NO:940:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:940:
 GGGCACAGGC 10

(2) INFORMATION FOR SEQ ID NO:941:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:941:
 GGCACAGGCT GGGC 14

(2) INFORMATION FOR SEQ ID NO:942:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:942:
 GGCACAGGCT GGG 13

(2) INFORMATION FOR SEQ ID NO:943:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:943:
 GGCACAGGCT GG 12

(2) INFORMATION FOR SEQ ID NO:944:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:944:
 GGCACAGGCT G 11

(2) INFORMATION FOR SEQ ID NO:945:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:945:

GGCACAGGCT

10

(2) INFORMATION FOR SEQ ID NO:946:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:946:

GCACAGGCTG GGC

13

(2) INFORMATION FOR SEQ ID NO:947:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:947:

GCACAGGCTG GG

12

(2) INFORMATION FOR SEQ ID NO:948:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:948:

GCACAGGCTG G

11

(2) INFORMATION FOR SEQ ID NO:949:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:949:

GCACAGGCTG

10

(2) INFORMATION FOR SEQ ID NO:950:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:950:

CACAGGCTGG GC

12

(2) INFORMATION FOR SEQ ID NO:951:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:951:

CACAGGCTGG G

11

(2) INFORMATION FOR SEQ ID NO:952:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:952:

CACAGGCTGG

10

(2) INFORMATION FOR SEQ ID NO:953:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:953:
 ACAGGCTGGG C 11

(2) INFORMATION FOR SEQ ID NO:954:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:954:
 ACAGGCTGGG 10

(2) INFORMATION FOR SEQ ID NO:955:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:955:
 CAGGCTGGGC 10

(2) INFORMATION FOR SEQ ID NO:956:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:956:
 TTTTCCTTCC TTTGTCTCTC TTC 23

(2) INFORMATION FOR SEQ ID NO:957:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:957:
 GCTCCCGGCT GCCTG 15

(2) INFORMATION FOR SEQ ID NO:958:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:958:
 CTCGGCCGTG CGGCTCTGTC GCTCCCGGT 29

(2) INFORMATION FOR SEQ ID NO:959:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:959:
 CCGCCGCCCT CCGGGGGGTC 20

(2) INFORMATION FOR SEQ ID NO:960:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:960:
 TGCTGCCGTT GGCTGCCC 18

(2) INFORMATION FOR SEQ ID NO:961:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:961:
 CTTCTGCGGG TCGCCGG 17

(2) INFORMATION FOR SEQ ID NO:962:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:962:
 TGCTGGGCTT GTGGC 15

(2) INFORMATION FOR SEQ ID NO:963:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:963:
 GGCCTCTCTT CTGGG 15

(2) INFORMATION FOR SEQ ID NO:964:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:964:
 CCTGGTCCT CCGT 14

(2) INFORMATION FOR SEQ ID NO:965:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:965:
 GGTGGCTCCT CTGC 14

(2) INFORMATION FOR SEQ ID NO:966:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:966:
 GCTTGCTCCT GGGGCTGC 18

(2) INFORMATION FOR SEQ ID NO:967:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:967:
 TGCTCTCCTC TCCTT 15

(2) INFORMATION FOR SEQ ID NO:968:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:968:
TGCTTTTCTT TTCTGGGCCT C 21

(2) INFORMATION FOR SEQ ID NO:969:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:969:
TGTGGTCTGT TTTTCTG 19

(2) INFORMATION FOR SEQ ID NO:970:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:970:
GCCCTGCTGG GCGCTCTCC 20

(2) INFORMATION FOR SEQ ID NO:971:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:971:
GCCGCCGCC TGGCTCCC 18

(2) INFORMATION FOR SEQ ID NO:972:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:972:
GGBGCCBTG BTGGCBTGC C 21

(2) INFORMATION FOR SEQ ID NO:973:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:973:
GTGTTCTTG CCTCCTTG GCTG 24

(2) INFORMATION FOR SEQ ID NO:974:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:974:
CCGTGCCGC TCCCCGC 18

(2) INFORMATION FOR SEQ ID NO:975:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:975:
CTCCTGGCGG GTGGCGTTG 20

(2) INFORMATION FOR SEQ ID NO:976:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:976:
 GGCCCCGTGTT CCCCTGGG 18

(2) INFORMATION FOR SEQ ID NO:977:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:977:
 GCCTGGGGCT CCCTTCTCTC 20

(2) INFORMATION FOR SEQ ID NO:978:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:978:
 GCCCTTCTTG CTGGGCCTC 19

(2) INFORMATION FOR SEQ ID NO:979:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:979:
 TGCTGCTGCT GGTGCTGTGG CCCCC 25

(2) INFORMATION FOR SEQ ID NO:980:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:980:
 GTACACCGAG GAGCCCATGA TGGGCATGCC ACAGACGACA GGC 43

(2) INFORMATION FOR SEQ ID NO:981:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:981:
 GTBCBCCGBG GBGCCCCBTGB TGGGCBTGCC BCBGBCGBCB GGC 43

(2) INFORMATION FOR SEQ ID NO:982:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:982:
 GGCGCCGTGC CGCGTCTTGG TGGCGGCGG 29

(2) INFORMATION FOR SEQ ID NO:983:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:983:
 GTTCGCGCCC GCGCGGGGCC CCTCCGGTCC 30

(2) INFORMATION FOR SEQ ID NO:984:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:984:
 GTTCGCGCCC GCGCGGGGCC CCTCCGGTCC 30

(2) INFORMATION FOR SEQ ID NO:985:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:985:
 CGGGTCGGGG CCCCCGCGG CC 22

(2) INFORMATION FOR SEQ ID NO:986:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:986:
 GCCTCGGGGC TGGGGCGCTG GTGGCCGGG 29

(2) INFORMATION FOR SEQ ID NO:987:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:987:
 CCGCGCCTCC GCCTGCCGCT TCTG 24

(2) INFORMATION FOR SEQ ID NO:988:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:988:
 GCTGGGCCCC GGGGCCCCC T 21

(2) INFORMATION FOR SEQ ID NO:989:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:989:
 CCCCTCTTGC TCGGTCCCC GTG 23

(2) INFORMATION FOR SEQ ID NO:990:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 48 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:990:
 ACAGCGCGTC CTGTGTCTCC AGCAGCATGG CCGGGCCAGC TGGGCCCC 48

(2) INFORMATION FOR SEQ ID NO:991:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 48 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:991:
 BCBGCGCGTC CTGTGTCTCC BGCBCBTGG CCGGCCBGC TGGGCCCC 48

(2) INFORMATION FOR SEQ ID NO:992:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:992:
 ACAGAGCATG CTGTTGTTGG GCATCTTGCC TTCCAGGG 39

(2) INFORMATION FOR SEQ ID NO:993:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:993:
 BCBGBGCBTG CTGTTGTTGG GCBCTTGCC TTCCBGGG 39

(2) INFORMATION FOR SEQ ID NO:994:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:994:
 CCCTTTTCTG GTGGGGTG 18

(2) INFORMATION FOR SEQ ID NO:995:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:995:
 GTGCTGTTGT TGGGC 15

(2) INFORMATION FOR SEQ ID NO:996:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:996:
 TTTCTTCTGT TCCC 14

(2) INFORMATION FOR SEQ ID NO:997:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:997:
 CCCTTTTCTG GTGGGGTG 18

(2) INFORMATION FOR SEQ ID NO:998:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:998:
 GTGCTGTTGT TGGGC 15

(2) INFORMATION FOR SEQ ID NO:999:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:999:
 TTTCTTCTGT TCCC 14

(2) INFORMATION FOR SEQ ID NO:1000:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1000:
 TTTCCCTGG GTCTTC 17

(2) INFORMATION FOR SEQ ID NO:1001:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1001:
 CTCCTGCTCT TTTTTC 16

(2) INFORMATION FOR SEQ ID NO:1002:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1002:
 ATTTGCTCTC CTATTACTTT CTGTGTCCAT TTTTTCATTA ACCGAGCTGT 50

(2) INFORMATION FOR SEQ ID NO:1003:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1003:
 BTTTGCTCTC CTBTBCTTT CTGTGTCCBT TTTTTCBTTB BCCGBGCTGT 50

(2) INFORMATION FOR SEQ ID NO:1004:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1004:
 GCCTGTGTCT GTCCTCCT 18

(2) INFORMATION FOR SEQ ID NO:1005:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1005:
GCTTCGTTCC TCTCGTTC 18

(2) INFORMATION FOR SEQ ID NO:1006:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1006:
CTGCTGGTG CCCTTGCCG 19

(2) INFORMATION FOR SEQ ID NO:1007:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1007:
GTCCGTGCTCC TCCGGGCTGT GG 22

(2) INFORMATION FOR SEQ ID NO:1008:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1008:
GTCGTGCCCC TGGCTCCGGC TGGTGGGCTC CCCTGG 36

(2) INFORMATION FOR SEQ ID NO:1009:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1009:
CCTTCGCTGG CTGGCGGCGT GC 22

(2) INFORMATION FOR SEQ ID NO:1010:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1010:
GGGTCTTGCT CTGGGCCTGG CTGT 24

(2) INFORMATION FOR SEQ ID NO:1011:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1011:
GGCCGTGGTT GGGGTCTTC 20

(2) INFORMATION FOR SEQ ID NO:1012:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1012:
GCTGCCTCCG TTTGGGTGGC 20

(2) INFORMATION FOR SEQ ID NO:1013:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1013:
TCTCTGAATA TTGACCTTCC TCCATGGCGG TCCTGCTTGG ATTCGCCGA 50

(2) INFORMATION FOR SEQ ID NO:1014:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 50 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: Genomic DNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1014:

TCTCTGBBTB TTGBCCTTCC TCCBTGGCGG TCCTGCTTGG BTTCTCCCGB

50

(2) INFORMATION FOR SEQ ID NO:1015:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1015:

GCCTTTCCTG GTTCTCTTGT TGTTTTTGGG GTTTGGCTT

39

(2) INFORMATION FOR SEQ ID NO:1016:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1016:
ACAGTAGAGT AGGGGATTCC ATGGCAGGAG CCATCTTCTT CATGGACTCC 50

(2) INFORMATION FOR SEQ ID NO:1017:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1017:

TTCAAGGAGA CCTTAGGTTT CTGAGGGACT GCTAACACGC CATCTGGAGC 50

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(2) INFORMATION FOR SEQ ID NO:1018:
(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 77 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1018:
BCBGTBGBGT BGGGGBTTC BTGGCBGGBG CCBTCTTCTT CBTGGBCTCC TTCBBGGBGB 60
CCTTBGGTTT CTGBGGG 77

```

(2) INFORMATION FOR SEQ ID NO:1019:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 23 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: Genomic DNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1019:

BCTGCTBBCB CGCCTCTGG BGC

23

(2) INFORMATION FOR SEQ ID NO:1020:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1020:
 GTTGTTTTTG GGGTTTGGCT T 21

(2) INFORMATION FOR SEQ ID NO:1021:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1021:
 GCCTTCCTG GTTCTCTT 18

(2) INFORMATION FOR SEQ ID NO:1022:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1022:
 BCBGTBGBGT BGGGBTTCC BTGGCBGGBG CCBTCTTCTT CBTGGBCTCC 50

(2) INFORMATION FOR SEQ ID NO:1023:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1023:
 TTCBBGGGBB CCTTBGGTTT CTGBGGGBCT GCTBBCBCGC CBTCTGGBGC 50

(2) INFORMATION FOR SEQ ID NO:1024:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1024:
 GCCTGTGTCT GTCCTCCT 18

(2) INFORMATION FOR SEQ ID NO:1025:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1025:
 GCTTCGTTCC TCTCGTTC 18

(2) INFORMATION FOR SEQ ID NO:1026:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1026:
 CTGCTTGGTG CCCTTGCCG 19

(2) INFORMATION FOR SEQ ID NO:1027:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1027:
GTCCTGCTCC TCCGGGCTGT GG 22

(2) INFORMATION FOR SEQ ID NO:1028:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1028:
GTCCTCGCCC TGGCTCCGGC TGGTGGGCTC CCCTGG 36

(2) INFORMATION FOR SEQ ID NO:1029:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1029:
CCTTCGCTGG CTGGCGGCGT GC 22

(2) INFORMATION FOR SEQ ID NO:1030:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1030:
CCCBGBBCGB GBCCCGGBCC GBCB 24

(2) INFORMATION FOR SEQ ID NO:1031:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1031:
GGCCGTGGTT GGGGGTCTTC 20

(2) INFORMATION FOR SEQ ID NO:1032:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1032:
GCTGCCTCCG TTTGGGTGGC 20

(2) INFORMATION FOR SEQ ID NO:1033:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1033:
GBTCTCTGBB TBTGBCCTT CCBTGGCGGT CTGCTTGGB 40

(2) INFORMATION FOR SEQ ID NO:1034:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1034:
TCTCCCTTGG GCTCTGGCTC CTTCTC 26

(2) INFORMATION FOR SEQ ID NO:1035:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1035:
 TCTCTCTCCC TCTCTCTCTG T 21

(2) INFORMATION FOR SEQ ID NO:1036:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1036:
 CGCCTCCGCC CTGGCTGCTG GGGTGGTGGT GC 32

(2) INFORMATION FOR SEQ ID NO:1037:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1037:
 TTTTGTCTT CCTGCTGCC 20

(2) INFORMATION FOR SEQ ID NO:1038:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1038:
 GCCCCGCTGC TTGTCTTCCT CG 22

(2) INFORMATION FOR SEQ ID NO:1039:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1039:
 CTCTGTCCCT CTCTCTCTGT BCTCCTCBGG CTCBCBCTC TCCCTTGGGC 50

(2) INFORMATION FOR SEQ ID NO:1040:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1040:
 CTTGCTCCTG GGGGCCTCCT G 21

(2) INFORMATION FOR SEQ ID NO:1041:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1041:
 GTCCCTCCGG GTGTCCCG C 21

(2) INFORMATION FOR SEQ ID NO:1042:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 81 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1042:
 GGGCCTGGCC TGGGGCBGGG GCCGCGTBGG CGCGGCTCGC CBGGBCGGGC BGC GCCBGCB 60
 GCBGCBGBTT CBGCBTCCTG G 81

(2) INFORMATION FOR SEQ ID NO:1043:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1043:
 CTTGCTCCTG GGGGCCTCCT G 21

(2) INFORMATION FOR SEQ ID NO:1044:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1044:
 GTCCCTCTGG CTGTTCCCGG C 21

(2) INFORMATION FOR SEQ ID NO:1045:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 90 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1045:
 CCTGGBCTGG GGCBBGGGCC GCGTBGGCGC GGCTCGCCBG GBCGGGCBGC GCCBGCBGCB 60
 GCBGGCTCBG CBTCTGGGCC BCGGBTTCC 90

(2) INFORMATION FOR SEQ ID NO:1046:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1046:
 GGTGTGCGGG GCCTGGTGCC 20

(2) INFORMATION FOR SEQ ID NO:1047:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1047:
 CCTGGGCCTC GGGTGCTGCC TGT 23

(2) INFORMATION FOR SEQ ID NO:1048:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1048:
 GCGCTGCCTT CTTCTCTGG 20

(2) INFORMATION FOR SEQ ID NO:1049:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1049:
 GTCCTCGCCG GGGCCCTTGC TGCCCTGGCT GT 32

(2) INFORMATION FOR SEQ ID NO:1050:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1050:
 GCCCTGGGGG TCTGGGTTCTG GCTGT 25

(2) INFORMATION FOR SEQ ID NO:1051:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1051:
 CCCCGBGCBGG BCCBGTCCCB TCCBCBGCCT GTGBTGBGTB GCCBTTCTCC TGCBGCCBG 60

(2) INFORMATION FOR SEQ ID NO:1052:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1052:
 GGGCGCGGGC GBGCBTCGC 19

(2) INFORMATION FOR SEQ ID NO:1053:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1053:
 TTTGGGCTTT TCTCCTTGG TT 22

(2) INFORMATION FOR SEQ ID NO:1054:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1054:
 TGBGCGCCBG GBCCGCGCBC BGCGBGCGGG CGCGGGCBGB CBTCGCBGCG GCGGGCBGGG 60

(2) INFORMATION FOR SEQ ID NO:1055:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1055:
 GCCCTGCTGC TCTTTCTGCT 20

(2) INFORMATION FOR SEQ ID NO:1056:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1056:

TCCCTTGGTG GGTGGGCC

19

(2) INFORMATION FOR SEQ ID NO:1057:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1057:

TTGCTGCCCC TTCTGTCCC

19

(2) INFORMATION FOR SEQ ID NO:1058:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1058:

GCT GGT TGT TCT GGG GTT C

19

(2) INFORMATION FOR SEQ ID NO:1059:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1059:

TGTTTGCTGG TGTCTGCGC

19

(2) INFORMATION FOR SEQ ID NO:1060:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 60 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1060:

CCCCBCCBGB BGBBGCGBGC BBBTTTGGGB BGTGBBCBGT TTTGGBBCCB TGTTTCCTGT

60

(2) INFORMATION FOR SEQ ID NO:1061:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1061:

CGGCTCGGCC TGGTCCCG

19

(2) INFORMATION FOR SEQ ID NO:1062:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1062:

GGGTCTCCTC TTGTTGTTGC

20

(2) INFORMATION FOR SEQ ID NO:1063:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1063:

TTGCGCCTCC TGCTGGGGT CC

22

(2) INFORMATION FOR SEQ ID NO:1064:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1064:
 CTCTGTTCTT GTTTGGGGG C 21

(2) INFORMATION FOR SEQ ID NO:1065:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1065:
 GGGCCCGGCC GTTGTCTTG 19

(2) INFORMATION FOR SEQ ID NO:1066:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1066:
 GTTTGGGGGT TTCCGTTG 18

(2) INFORMATION FOR SEQ ID NO:1067:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1067:
 GGGTTCTCCT GGCCCGGCC TTGCC 26

(2) INFORMATION FOR SEQ ID NO:1068:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1068:
 GGCCGTGGTC CCGGCTTCGT TGC 23

(2) INFORMATION FOR SEQ ID NO:1069:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1069:
 CCTGTCTCCG TCTCGGCTCT TCTG 24

(2) INFORMATION FOR SEQ ID NO:1070:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1070:
 GGGCCTTGCG CTGTCTTGG TG 22

(2) INFORMATION FOR SEQ ID NO:1071:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1071:
GCBCCGTCCB GTGBTGGTGC GGTBCTTGTC GCTGCBGCGC TCGGCCTGGT CCCGGBGBGC 60

(2) INFORMATION FOR SEQ ID NO:1072:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1072:
GCGCGGGCCG GGGGCTGCTG GG 22

(2) INFORMATION FOR SEQ ID NO:1073:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1073:
GGTTGGCCCG GGGTGCCCC 19

(2) INFORMATION FOR SEQ ID NO:1074:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1074:
GCCGCTGGGT GCCCTCGTCC TCTGCGGTC 29

(2) INFORMATION FOR SEQ ID NO:1075:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1075:
GTGTCTCCTG GCTCTGGTTC CCC 23

(2) INFORMATION FOR SEQ ID NO:1076:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1076:
GCTGCGCCCG TTGTCCTCTG GGGTGCCTT C 31

(2) INFORMATION FOR SEQ ID NO:1077:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1077:
GCTCCCGGGT CTGTTCTTG TGT 23

(2) INFORMATION FOR SEQ ID NO:1078:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1078:
TGGGGGTCCC TTTTGGGCC TGTGT 26

(2) INFORMATION FOR SEQ ID NO:1079:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1079:
 GGCGTGGCTT GTGTGTTCCG TTTC 24

(2) INFORMATION FOR SEQ ID NO:1080:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1080:
 TGCCCTGTCC TCCGGCGTCC C 21

(2) INFORMATION FOR SEQ ID NO:1081:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 142 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1081:
 CGGBGCCTCC CCGGGGCBGG BTGBCTTTTG BGGGGGBCBC BGBTGTCTGG GCBTTGCCBG 60
 CTCCTGGGBB CBGBGCCCCG BGCBBGBCCB GGBGTGCGGG CBGCGCGGGC CGGGGGCTGC 120
 TGGGBGCCBT BGCBBGGCTG BG 142

(2) INFORMATION FOR SEQ ID NO:1082:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1082:
 CCTCTTTTCT GTTTTTCC 19

(2) INFORMATION FOR SEQ ID NO:1083:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1083:
 CTCTGCCTTT GTTTGGGTTC G 21

(2) INFORMATION FOR SEQ ID NO:1084:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1084:
 CTTCTTTTCT GCTTCTTCC 19

(2) INFORMATION FOR SEQ ID NO:1085:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1085:
 CTGTGTCTCC TGTCTCCGCT TTTTCTTC 29

(2) INFORMATION FOR SEQ ID NO:1086:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1086:
 GTCTTTGTG TTTTCTCTC CTTG 24

(2) INFORMATION FOR SEQ ID NO:1087:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 130 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1087:
 CTGBGCBGBB TBTCTBGBTT CTGGGGTGGT CTCGBTTTTB BBBGCTTGBG BBGCTGCBBB 60
 CBTTBTCCBB BGTBTBTTT BGGCTCCBBG GBTBCGBCC BTCTTCCCBG GCBTTTTBBG 120
 TTGCTGTCGT 130

(2) INFORMATION FOR SEQ ID NO:1088:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1088:
 GTTCTTGGCT TCTTCTGTC 19

(2) INFORMATION FOR SEQ ID NO:1089:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1089:
 CGTTGGCTTC TCGTTGTCCC 20

(2) INFORMATION FOR SEQ ID NO:1090:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1090:
 TGTGGGCTTC TCGTTGTCCC 20

(2) INFORMATION FOR SEQ ID NO:1091:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1091:
 CCCTTCGGGG GCTGGTGG 18

(2) INFORMATION FOR SEQ ID NO:1092:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1092:
 GGCTGGTGG 9

(2) INFORMATION FOR SEQ ID NO:1093:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1093:
GGCCGTCCTT GCCTGCTGG 19

(2) INFORMATION FOR SEQ ID NO:1094:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1094:
TTTTCTCTTT CGCTTTCTTT TCGTCTCCTG TTCCTCCTTT T 41

(2) INFORMATION FOR SEQ ID NO:1095:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1095:
TTGCTGTTTT TTCTCCTTCT TCTCTCCTTT CTTTTC 36

(2) INFORMATION FOR SEQ ID NO:1096:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1096:
TTTTCTCTTT CGCTTTCTTT TCGTCTCCTG TTCCTCCTTT T 41

(2) INFORMATION FOR SEQ ID NO:1097:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1097:
TTGCTGTTTT TTCTCCTTCT TCTCTCCTTT CTTTTC 36

(2) INFORMATION FOR SEQ ID NO:1098:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1098:
CTCTGTCTTG TTCTGGTCCT TCGTGGGGCT CTG 33

(2) INFORMATION FOR SEQ ID NO:1099:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1099:
TGTCGCGTGG GTGCGGCCGT GGCC 24

(2) INFORMATION FOR SEQ ID NO:1100:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 69 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1100:
GGCGGBCCBG GBGTTGBGC BGGBCBGG BGGCBGGCG GCTCBTGT TT GGBTCGGCBG 60
GBGGCBCTC 69

(2) INFORMATION FOR SEQ ID NO:1101:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1101:
 TCTGGGGTGT CCTG 14

(2) INFORMATION FOR SEQ ID NO:1102:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1102:
 GCCTTCGTGG TTCC 14

(2) INFORMATION FOR SEQ ID NO:1103:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1103:
 TCTTCCTTCG TTGC 15

(2) INFORMATION FOR SEQ ID NO:1104:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1104:
 GGCTGCGCTC CTGCCCCGC 19

(2) INFORMATION FOR SEQ ID NO:1105:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1105:
 CGTCCGCGGG GCGCCCCGGG CCT 23

(2) INFORMATION FOR SEQ ID NO:1106:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1106:
 CTCTTTCCCG GGCTCTT 17

(2) INFORMATION FOR SEQ ID NO:1107:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1107:
 GCGCTGGGGG GTGCTCC 17

(2) INFORMATION FOR SEQ ID NO:1108:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1108:
CGTGTGTTTG CGCCCTCCTC CTGGTCGC 28

(2) INFORMATION FOR SEQ ID NO:1109:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1109:
GCTTGTCGTT TTGG 14

(2) INFORMATION FOR SEQ ID NO:1110:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1110:
GGCCGGCTTT GCCCGCCTCC C 21

(2) INFORMATION FOR SEQ ID NO:1111:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1111:
GGCGCCTGGC CCGGCC 16

(2) INFORMATION FOR SEQ ID NO:1112:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1112:
TTCCTGGGCT GCGTGCGC 18

(2) INFORMATION FOR SEQ ID NO:1113:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1113:
GTTCTGTTCT TCTTCCTGGC 20

(2) INFORMATION FOR SEQ ID NO:1114:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 78 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1114:
GCBGGBGBCB GGGCBGGGCG BTCBGBGCB GCGTGBGCCB BBGGBGGBCC BTCGGGBBCG 60
CBGCTCCGGB BCGCBGGB 78

(2) INFORMATION FOR SEQ ID NO:1115:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1115:
CTCTGGTTGG CTTCTTC 18

(2) INFORMATION FOR SEQ ID NO:1116:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1116:
 GCCGGCBCBT GCTBGCBBGB BGBBCBGBGG GGGBBGCBGT TGGGBGGTGB GBCCCBTTBB 60
 TBGGTGTTCGB 70

(2) INFORMATION FOR SEQ ID NO:1117:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1117:
 TCTGCGCGCC CCTGCTCC 18

(2) INFORMATION FOR SEQ ID NO:1118:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1118:
 CGCCCGGCTT CTCT 14

(2) INFORMATION FOR SEQ ID NO:1119:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1119:
 CGTGTGGGCT TCGG 14

(2) INFORMATION FOR SEQ ID NO:1120:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1120:
 CCCC CGCCT CCGTTGTCT C 21

(2) INFORMATION FOR SEQ ID NO:1121:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1121:
 TGCTCGCTGG GCTTG 15

(2) INFORMATION FOR SEQ ID NO:1122:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1122:
 GGTTTCCTGG GGCCCTGGGT TTC 23

(2) INFORMATION FOR SEQ ID NO:1123:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1123:
 TCTGCCGGGT CGTTTTC 17

(2) INFORMATION FOR SEQ ID NO:1124:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1124:
 GGGTGCTGGC TGCG 14

(2) INFORMATION FOR SEQ ID NO:1125:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1125:
 CTTGGTGCTG GGGCTCC 17

(2) INFORMATION FOR SEQ ID NO:1126:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1126:
 GGCGGCTGCG GGCTGGGTTG GG 22

(2) INFORMATION FOR SEQ ID NO:1127:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1127:
 CTTGGCTGGT TCCTGGCCTC GGG 23

(2) INFORMATION FOR SEQ ID NO:1128:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1128:
 CCTCCTCCTC CTCCTCGCTC CCTTTTCTT CCTCT 35

(2) INFORMATION FOR SEQ ID NO:1129:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1129:
 TCCCTGCTGC TCTC 14

(2) INFORMATION FOR SEQ ID NO:1130:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1130:

TGCCCTCCCT TCCCTCCTGG 20

(2) INFORMATION FOR SEQ ID NO:1131:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1131:
GGTGCCTCCT TGGGCCCTGC 20

(2) INFORMATION FOR SEQ ID NO:1132:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1132:
GGCTGCTCCT TGCCCC 16

(2) INFORMATION FOR SEQ ID NO:1133:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1133:
CTCTGGGTCG GGCTGGC 17

(2) INFORMATION FOR SEQ ID NO:1134:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1134:
GGGGCGTCTC TGTGC 15

(2) INFORMATION FOR SEQ ID NO:1135:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1135:
CTGGCCTGGG TGCC 14

(2) INFORMATION FOR SEQ ID NO:1136:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1136:
GCCTCTCCTG GGGGGGTGC TCCCTGTCC 29

(2) INFORMATION FOR SEQ ID NO:1137:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1137:
CCTTTTCCCC CGGCTCC 17

(2) INFORMATION FOR SEQ ID NO:1138:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1138:
 GTGGGGGCTT TGGC 14

(2) INFORMATION FOR SEQ ID NO:1139:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1139:
 GGGGGTCTGT GCCTGCTCC TGGGG 25

(2) INFORMATION FOR SEQ ID NO:1140:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1140:
 AGGGGTCTGG GGCCCTC 17

(2) INFORMATION FOR SEQ ID NO:1141:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1141:
 TTTTGGGGGT CTGGCTTG 18

(2) INFORMATION FOR SEQ ID NO:1142:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1142:
 GCCTGGCTGC CTTCC 15

(2) INFORMATION FOR SEQ ID NO:1143:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1143:
 GGGGCCTGCC GTGGGGC 17

(2) INFORMATION FOR SEQ ID NO:1144:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1144:
 TGTCTCTGT TGCTCCCTT 20

(2) INFORMATION FOR SEQ ID NO:1145:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1145:
 TGCCTGCTGT CTGG 14

(2) INFORMATION FOR SEQ ID NO:1146:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1146:
 GGTTCGCCGCC TTCCCT 16

(2) INFORMATION FOR SEQ ID NO:1147:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 100 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1147:
 GTTCCCAGAG CTTGCCACCT GCAGCAGGAC CAGGCAGCTC ACAGGGAACA GGAGCCCAGA 60
 GCAAAGCCAC CCCATTGGGA GATGCCAAGG CACCAGGCTG 100

(2) INFORMATION FOR SEQ ID NO:1148:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 100 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1148:
 GTTCCCBGBG CTTGCCBCCT GCBGCBGGBC CBGGCBGCTC BCBGGGBBCB GGBGCCCBGB 60
 GCBBBGCCBC CCCBTTGGGB GBTGCCBBGG CBCCBGGCTG 100

(2) INFORMATION FOR SEQ ID NO:1149:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1149:
 TCCCTGTTTC CCCCCTTT 18

(2) INFORMATION FOR SEQ ID NO:1150:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1150:
 CGTTCTGCGT TTGCCTTTGG C 21

(2) INFORMATION FOR SEQ ID NO:1151:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1151:
 GTTTTTTGTT TGTCTTCT 18

(2) INFORMATION FOR SEQ ID NO:1152:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1152:
 CTCTCCGTCT TTCTTCTC 19

(2) INFORMATION FOR SEQ ID NO:1153:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1153:
 CCTCCTGCCT GTGTCCCTGC TCCCC 25

(2) INFORMATION FOR SEQ ID NO:1154:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1154:
 GAGGGTTTCT GGCTTCCTCT CT 22

(2) INFORMATION FOR SEQ ID NO:1155:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1155:
 TGTCTCTCTG TCCTTTTGT 20

(2) INFORMATION FOR SEQ ID NO:1156:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1156:
 TGTGTGCGG CCTGGTGCTG CCCTGCCCG GG 32

(2) INFORMATION FOR SEQ ID NO:1157:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 89 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1157:
 GTGGGBBTTT CTGTGGGGBT GGCBTBCBCG TBGGCBGCTC CBBGBGCTBG CBBBCTCBBB 60
 TGCBBBGGCB TCCTCBTGGC TCTGBBBGC 89

(2) INFORMATION FOR SEQ ID NO:1158:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1158:
 CCGTGTCTGT CGTGTCT 17

(2) INFORMATION FOR SEQ ID NO:1159:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1159:
 TTCCTTGCT CTTG 14

(2) INFORMATION FOR SEQ ID NO:1160:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1160:
 GTGTGTCTTT GCTGT 15

(2) INFORMATION FOR SEQ ID NO:1161:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1161:
 GCCCTGCCTC TCTGC 15

(2) INFORMATION FOR SEQ ID NO:1162:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1162:
 GGGGGTGGCT TCCTGCC 17

(2) INFORMATION FOR SEQ ID NO:1163:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1163:
 GCGTCTCTGG GCCGTCCC 18

(2) INFORMATION FOR SEQ ID NO:1164:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1164:
 GTCCCTCGGC CCCGCCCGC GCTCGGCTCC TCTCCC 36

(2) INFORMATION FOR SEQ ID NO:1165:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1165:
 TCTGGCCCGG CTC 13

(2) INFORMATION FOR SEQ ID NO:1166:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1166:
 GGGGCGGGGC GGGCGGTGG GCGGGC 26

(2) INFORMATION FOR SEQ ID NO:1167:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1167:
 GGCGCTGCCC TGCGC 15

(2) INFORMATION FOR SEQ ID NO:1168:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1168:
 GCGGCGCTGG CCCC 14

(2) INFORMATION FOR SEQ ID NO:1169:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1169:
 TGCTGGCCGT CGGCTGCGCG CTGCTGGCTG CCCT 34

(2) INFORMATION FOR SEQ ID NO:1170:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1170:
 GCTGGCCGCG CCGGG 15

(2) INFORMATION FOR SEQ ID NO:1171:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1171:
 GCCTGTCCGC CTCTGCGGG 19

(2) INFORMATION FOR SEQ ID NO:1172:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1172:
 CGCTGTCTCC TGGC 14

(2) INFORMATION FOR SEQ ID NO:1173:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1173:
 TTGTCTTCCG GCTCT 15

(2) INFORMATION FOR SEQ ID NO:1174:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1174:
 TCTGCTGGGG TGGG 14

(2) INFORMATION FOR SEQ ID NO:1175:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1175:
GCTGGGCGGC CGGCCCGT 19

(2) INFORMATION FOR SEQ ID NO:1176:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1176:
GCTGGGGCTC CTCGGGGG 19

(2) INFORMATION FOR SEQ ID NO:1177:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1177:
GGGGCTCTT CCGG 14

(2) INFORMATION FOR SEQ ID NO:1178:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1178:
GCTGTCTCCC TCCGGG 16

(2) INFORMATION FOR SEQ ID NO:1179:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1179:
GCGGGGGTTT CTGGCC 16

(2) INFORMATION FOR SEQ ID NO:1180:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1180:
GTGGGGTCT TGCC 14

(2) INFORMATION FOR SEQ ID NO:1181:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1181:
TGGCCTCCGG GCTCC 15

(2) INFORMATION FOR SEQ ID NO:1182:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1182:
TGCTTGCTTT GCCTTCCTC 20

(2) INFORMATION FOR SEQ ID NO:1183:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1183:
 TCTGGTCGGT TGTGGCTCG 19

(2) INFORMATION FOR SEQ ID NO:1184:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1184:
 GGGCTCCGTG GGTCCCTGGC 20

(2) INFORMATION FOR SEQ ID NO:1185:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1185:
 GCGCGTTTGT GTTTTGTC 18

(2) INFORMATION FOR SEQ ID NO:1186:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1186:
 TTTTCCCTG GCGT 14

(2) INFORMATION FOR SEQ ID NO:1187:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1187:
 CCCTGTGCCC CTCTCTCTC CTCCTCTGC TTCTC 35

(2) INFORMATION FOR SEQ ID NO:1188:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1188:
 GCTCTCCTTT GTGGG 15

(2) INFORMATION FOR SEQ ID NO:1189:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1189:
 GCCCTCCCTG CTGCT 15

(2) INFORMATION FOR SEQ ID NO:1190:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1190:
CTTGGTTTTG GGCT

14

(2) INFORMATION FOR SEQ ID NO:1191:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1191:
TTTTTTCTCT TCCTCCTTTT TC

22

(2) INFORMATION FOR SEQ ID NO:1192:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1192:
GTGCGTGGGC CTCC

14

(2) INFORMATION FOR SEQ ID NO:1193:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1193:
CCCCGGCGC

8

(2) INFORMATION FOR SEQ ID NO:1194:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 150 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1194:
GCACGCCTCT TGCCACCTCC TGC GCAGGGC AGCGCCTTGG GGCCAGCGCC GCTCCCGGCG 60
CGGCCAGCAG GGCAGCCAGC AGCGCGCAGC CGACGGCCAG CATGCTTCCT CCTCGGCTAC 120
CACTCCATGG TCCCGCAGAG GCGGACAGGC 150

(2) INFORMATION FOR SEQ ID NO:1195:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1195:
GGCCBGCBBG

10

(2) INFORMATION FOR SEQ ID NO:1196:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 150 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1196:
GCBGCGCTCT TGCCBCCTCC TGCGCBGGGC BGC GCCTTGG GGCCBGC GCC GCTCCCGGCG 60
CGGCCBGC BG GGCBCBGC BGC GCGCBGC CGBCGGCCBG CBTGCTTCCT CCTCGGCTBC 120
CBCTCCBTGG TCCCGCBGBG GCGGBCBGGC 150

(2) INFORMATION FOR SEQ ID NO:1197:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1197:
GCTTCTCTTT CGTTCCCGGT GGGCTCG 27

(2) INFORMATION FOR SEQ ID NO:1198:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1198:
GTGGCTGTCT GTGTGGGCG GCT 23

(2) INFORMATION FOR SEQ ID NO:1199:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1199:
GTGCCTCTTT GCTGCTTTC 19

(2) INFORMATION FOR SEQ ID NO:1200:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1200:
GATTCTTTGC CTTTTTCTGC 20

(2) INFORMATION FOR SEQ ID NO:1201:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1201:
GCTTGTGTGC TCTGCTGTCT CT 22

(2) INFORMATION FOR SEQ ID NO:1202:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1202:
TGTTCTCTTC CGGTGGTTTC TTCCTGGCTC TTGTCCT 37

(2) INFORMATION FOR SEQ ID NO:1203:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1203:
TTCTCTTGGC CCTTGGC 17

(2) INFORMATION FOR SEQ ID NO:1204:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1204:
TGGTGGGGCT GGGGCTCCGG GGTCTCTGCC CCTCCGTGC 39

(2) INFORMATION FOR SEQ ID NO:1205:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1205:
CGCGTGGGGC CGCGTCGCC GGCCCCC 28

(2) INFORMATION FOR SEQ ID NO:1206:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1206:
CCTGCCGGGT GGGTCCCG CGCG 24

(2) INFORMATION FOR SEQ ID NO:1207:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1207:
CGCCGGCCTG CCGCCCCC 20

(2) INFORMATION FOR SEQ ID NO:1208:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1208:
GTGGTCCTG CTGGCCGGGT CCGGTCCCG GGGGTGGG 39

(2) INFORMATION FOR SEQ ID NO:1209:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1209:
CGCGBGTCGG CGCCGBGG TC 22

(2) INFORMATION FOR SEQ ID NO:1210:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1210:
GGCTCCBCC BGGBCBTG 19

(2) INFORMATION FOR SEQ ID NO:1211:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1211:
GTCCTTCTTG TCCGCTGCC 19

(2) INFORMATION FOR SEQ ID NO:1212:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1212:
 TCTCTGGGGT TTTCCGGTCTG GGTGG 25

(2) INFORMATION FOR SEQ ID NO:1213:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1213:
 GCTTTCCTCC TGGGGCTGCT GCTG 24

(2) INFORMATION FOR SEQ ID NO:1214:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1214:
 GGCTCTTCTT TTTGTTTCTG GCCTGGTG 28

(2) INFORMATION FOR SEQ ID NO:1215:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1215:
 CTCTCTCGTG CCCTTTCC 18

(2) INFORMATION FOR SEQ ID NO:1216:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1216:
 CTTGGGTGTC TTGTTTTTGT 20

(2) INFORMATION FOR SEQ ID NO:1217:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1217:
 GGCCTCCBCC BGGGBCBTG 19

(2) INFORMATION FOR SEQ ID NO:1218:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1218:
 GTGGGGCCTG CTCTCCCGGC CTCCG 25

(2) INFORMATION FOR SEQ ID NO:1219:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1219:

TGTGTTGCTG GGTGTTTTCC CGTCTCTGG

29

(2) INFORMATION FOR SEQ ID NO:1220:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1220:
TCTGCCTTCG GGGGTCGT

18

(2) INFORMATION FOR SEQ ID NO:1221:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1221:
GGGTCCTCBT GGCTGGGG

18

(2) INFORMATION FOR SEQ ID NO:1222:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1222:
GCCTGGGCCT GCBGGGCC

18

(2) INFORMATION FOR SEQ ID NO:1223:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1223:
GCTCTTGCTT GGBGTGGCTC

20

(2) INFORMATION FOR SEQ ID NO:1224:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1224:
GCCCGBGTC TTCCCTGGT

19

(2) INFORMATION FOR SEQ ID NO:1225:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1225:
GGGTCCTCBT GGCTGGGGTC

20

(2) INFORMATION FOR SEQ ID NO:1226:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1226:

CCTCTCTCCC GTCCT 15

(2) INFORMATION FOR SEQ ID NO:1227:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1227:
 GTCTTTGTTT CTGGGCTCGT GCC 23

(2) INFORMATION FOR SEQ ID NO:1228:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1228:
 CCBTCCCGGC TTCTCTCTGG TTCC 24

(2) INFORMATION FOR SEQ ID NO:1229:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1229:
 GTCCTCTGTG GTGTTTGG 18

(2) INFORMATION FOR SEQ ID NO:1230:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1230:
 CCCTGCTTCC TTTTGCCTGT T 21

(2) INFORMATION FOR SEQ ID NO:1231:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 85 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1231:
 GAGGGGGCAG CAGTTGGGCC CCAAAGGCC TCTCGTTCAC CTTCTGGCAC GGAGTTGCAT 60
 CCCCATAGTC AACTCTGTG GTCGT 85

(2) INFORMATION FOR SEQ ID NO:1232:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1232:
 GTCATAGTCC TCTGTGGTGT TTGGAGTTTC CATCCCGGCT TCTCTCTGGT TCCAAGGGA 59

(2) INFORMATION FOR SEQ ID NO:1233:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 86 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1233:
 GBGGGGGCBG CBGTTGGGCC CBBBGGCCC TCTCGTTCBC CTTCTGGCBC GGBGTTGCBT 60
 CCCCBTBGTC BBBCTCTGTG GTCGTG 86

(2) INFORMATION FOR SEQ ID NO:1234:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1234:
 TCBTBGTCTT CTGTGGTGTT TGGBGTTC BTCCCGGCTT CTCTCTGGTT CCBBGGGB 58

(2) INFORMATION FOR SEQ ID NO:1235:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 84 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1235:
 GGGCBGCGGG CBGTGGGCGG GCBBTGTBGG CBBBGCBCGB GGGTGTGGTG TCCGBGGBBT 60
 BTGGGBGGGC BGTGCBGGB GCGC 84

(2) INFORMATION FOR SEQ ID NO:1236:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1236:
 BGBGGGCBGT BGCBBTGBGG BTGBCBGCB GCGTGCCG GGBGBCCTT BTGGTBCCTG 60
 TGGBGBGGCT GTCGBGG 78

(2) INFORMATION FOR SEQ ID NO:1237:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1237:
 GGGTGTGGTG TCCGCTTGGC GGTCTTTCG GGTGTTTCTT CTCTGGGTTG GCCTGCTGCT 60
 CGTCGTGGTC 70

(2) INFORMATION FOR SEQ ID NO:1238:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1238:
 GCTCCGCTCC CGGGTTCGTC TCGCTCTGTC GCCCTTCCT TCCTGTGCT GTTCCTCCCT 60
 TCCTGCCTC T 71

(2) INFORMATION FOR SEQ ID NO:1239:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1239:
 GGGTGTGGTG TCCG 14

(2) INFORMATION FOR SEQ ID NO:1240:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1240:

CTTGCGGTT CTTTCGGGTG 20

(2) INFORMATION FOR SEQ ID NO:1241:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1241:
 TTTCTTCTCT GGGTTGGC 18

(2) INFORMATION FOR SEQ ID NO:1242:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1242:
 CTGCTGCTCG TCGTGGTC 18

(2) INFORMATION FOR SEQ ID NO:1243:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1243:
 GCTCCGCTCC CGGGTTC 17

(2) INFORMATION FOR SEQ ID NO:1244:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1244:
 GTCTCGCTCT GTCGCC 17

(2) INFORMATION FOR SEQ ID NO:1245:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1245:
 CTTCTTCCT TGTC 14

(2) INFORMATION FOR SEQ ID NO:1246:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1246:
 GTGTTCTCC CTTCTTGCC TCT 23

(2) INFORMATION FOR SEQ ID NO:1247:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1247:
 GTTCBTGGTG GCTBGGTGGG GC 22

(2) INFORMATION FOR SEQ ID NO:1248:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1248:
 GCTGCCCGGC GGGGTGTGCG CTTGGC 26

(2) INFORMATION FOR SEQ ID NO:1249:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1249:
 GCTCCCGTGC TCGGTCTCT GTCTCCGGT 30

(2) INFORMATION FOR SEQ ID NO:1250:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1250:
 CCCCTTTGC CTGGCTCTC GG 22

(2) INFORMATION FOR SEQ ID NO:1251:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1251:
 GCCTTCGTCC TCTCCTCTT CTTCTTCC 29

(2) INFORMATION FOR SEQ ID NO:1252:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1252:
 GCTCCGTGGG GGCTGCTTG TGGGGGCCTG TGCTCGGGG TCC 43

(2) INFORMATION FOR SEQ ID NO:1253:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1253:
 CGGGGCTTCT GGCCCTTGCC 20

(2) INFORMATION FOR SEQ ID NO:1254:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1254:
 GTTCATGGTG GCTAGGTGGG GC 22

(2) INFORMATION FOR SEQ ID NO:1255:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1255:
GGGGTGGGTB GGCCGTGTCT GGGG 24

(2) INFORMATION FOR SEQ ID NO:1256:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1256:
GTTGGCCBTG TTGGTTGCC 19

(2) INFORMATION FOR SEQ ID NO:1257:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1257:
TCTTGGTGGT GCGCCGGGC 19

(2) INFORMATION FOR SEQ ID NO:1258:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 47 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1258:
GCGTCTTGGC TTTCTTCTCC TTCGGGCCCT CGGGCCGGTG CTTGTGG 47

(2) INFORMATION FOR SEQ ID NO:1259:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1259:
GCTCTCCCG GCGGCCTCC CCGGGCGGG GCTTCTTG 38

(2) INFORMATION FOR SEQ ID NO:1260:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1260:
GCGCTGGCGG GGGGCCTCC TCC 23

(2) INFORMATION FOR SEQ ID NO:1261:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1261:
GCTCTGTGGC TGGCGTTC TTGGTGTCT GGGTGGC 37

(2) INFORMATION FOR SEQ ID NO:1262:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1262:
TGGCGGGCGT GGTGCCTCT GTGGTGG 27

(2) INFORMATION FOR SEQ ID NO:1263:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1263:
 GGGCCCGCGG CTGCBGGG 19

(2) INFORMATION FOR SEQ ID NO:1264:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1264:
 TTGCCTGTCT GCTTCGTC 18

(2) INFORMATION FOR SEQ ID NO:1265:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1265:
 CTTTGCGCTC CCGGCCGCC 20

(2) INFORMATION FOR SEQ ID NO:1266:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1266:
 GGGGTGGGTA GGCCGTGTCT GGGG 24

(2) INFORMATION FOR SEQ ID NO:1267:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1267:
 GTTGCCATG TTGGTTGCC 19

(2) INFORMATION FOR SEQ ID NO:1268:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1268:
 GGGCCCGCGG CTGCAGGG 19

(2) INFORMATION FOR SEQ ID NO:1269:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1269:
 CGGTTTCCTT TGCGTC 17

(2) INFORMATION FOR SEQ ID NO:1270:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1270:
TTGGCCCGGG CTCCGGGTG 19

(2) INFORMATION FOR SEQ ID NO:1271:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1271:
CCCGCCCGCC CGCCGGCCGC CGC 23

(2) INFORMATION FOR SEQ ID NO:1272:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1272:
CCCGCCGGGC TGTCCCGCC CCGCCC 27

(2) INFORMATION FOR SEQ ID NO:1273:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1273:
GGCCCGGGGC GCGGGG 17

(2) INFORMATION FOR SEQ ID NO:1274:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1274:
CGGCCCTCCC GCCCCTCTGG 20

(2) INFORMATION FOR SEQ ID NO:1275:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1275:
GCCGGCGCGG GCGTCGG 17

(2) INFORMATION FOR SEQ ID NO:1276:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1276:
CCGCTCGCGC CTGGGGTTCC CTCTCTCCC CCTGTGC 37

(2) INFORMATION FOR SEQ ID NO:1277:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1277:
GCCTGCCTCT TGCTCTTC 18

(2) INFORMATION FOR SEQ ID NO:1278:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1278:
 TCGGTCCGCT GCCTTCTCCC 20

(2) INFORMATION FOR SEQ ID NO:1279:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1279:
 CTCTCCTCGG CCGTTGCCTG TGC 23

(2) INFORMATION FOR SEQ ID NO:1280:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1280:
 TGTCCTCCT GTCGCCCTTC CGTGGTGC 28

(2) INFORMATION FOR SEQ ID NO:1281:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1281:
 TGTGTCTCT TCTGCCCTC 19

(2) INFORMATION FOR SEQ ID NO:1282:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1282:
 GGTGTGCTGG TGCTGGTGGT GGTG 24

(2) INFORMATION FOR SEQ ID NO:1283:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1283:
 CCTCTGCCCG TGCTCGCC 18

(2) INFORMATION FOR SEQ ID NO:1284:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1284:
 CTGCCTGGGC TGGCCTCTTC GGGT 24

(2) INFORMATION FOR SEQ ID NO:1285:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1285:
GTGGCTTTGG GGCTCTCTTG GTTGCCCTTT 30

(2) INFORMATION FOR SEQ ID NO:1286:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1286:
CTTCTCGTGG TGCCTCTCCT CCCTGGCTTG GTCGT 35

(2) INFORMATION FOR SEQ ID NO:1287:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1287:
TGTCTGGGGT GGTGCTCCTC TCCC 24

(2) INFORMATION FOR SEQ ID NO:1288:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1288:
TTTCCCTGCT GGCCGTTTGT 20

(2) INFORMATION FOR SEQ ID NO:1289:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1289:
CCTGTTTCT GTCTTCCTCT 20

(2) INFORMATION FOR SEQ ID NO:1290:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1290:
TTCTCTCTGT TTCTCCGT 18

(2) INFORMATION FOR SEQ ID NO:1291:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1291:
TTGGCTTGCT GCTTGCGGGG CTGTCTCC 28

(2) INFORMATION FOR SEQ ID NO:1292:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1292:
CTTGCCCCTG TGGGCTTCC C 21

(2) INFORMATION FOR SEQ ID NO:1293:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1293:
 TGGTCCGGTC TTCTCCTTGG GGGTC 25

(2) INFORMATION FOR SEQ ID NO:1294:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1294:
 GCCCTTCTTG GTGGGCTG 18

(2) INFORMATION FOR SEQ ID NO:1295:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1295:
 GCTCGTCTGT CTTTTTCCTT CC 22

(2) INFORMATION FOR SEQ ID NO:1296:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1296:
 TGGGGGTGGC CGTTGTGGGC GGTGTGGTCC GCCT 34

(2) INFORMATION FOR SEQ ID NO:1297:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1297:
 TGCCTCTGCT GGTCTTTC 18

(2) INFORMATION FOR SEQ ID NO:1298:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1298:
 GTGCTCCGGT GGCTTTT 18

(2) INFORMATION FOR SEQ ID NO:1299:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1299:
 GCTTGTGTGC TCTGCTGTCT CTG 23

(2) INFORMATION FOR SEQ ID NO:1300:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1300:

TTCCTTCCGG TGGTTTCTTC CTGGCTCTTG TCCT

34

(2) INFORMATION FOR SEQ ID NO:1301:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1301:

TTCTCTTGGC CCTTGGCCC

19

(2) INFORMATION FOR SEQ ID NO:1302:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1302:

TGGCTCGGTG CTTCTGCCCC

20

(2) INFORMATION FOR SEQ ID NO:1303:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1303:

TGTTGTTGCG GCGCTC

16

(2) INFORMATION FOR SEQ ID NO:1304:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1304:

GGTTGGTGTG GCCCCTG

17

(2) INFORMATION FOR SEQ ID NO:1305:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1305:

TGGTGCTTCG TTTC

15

(2) INFORMATION FOR SEQ ID NO:1306:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1306:

CCCTCTTTCT CTTTGTTT

18

(2) INFORMATION FOR SEQ ID NO:1307:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1307:

GGGGTTCTT GTGGC

15

(2) INFORMATION FOR SEQ ID NO:1308:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1308:
 GGGCTGCTTG TCTCGTTCC 19

(2) INFORMATION FOR SEQ ID NO:1309:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1309:
 GGTCBGGCCB TGGGTCTGGG 20

(2) INFORMATION FOR SEQ ID NO:1310:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1310:
 GGCTGGGCTG CBGGCTCCGG 20

(2) INFORMATION FOR SEQ ID NO:1311:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1311:
 GCGGGCGGGT GCGGGCTGCG TGCTGGG 27

(2) INFORMATION FOR SEQ ID NO:1312:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1312:
 GGCTGCCCCG CAGGCCCTGC 20

(2) INFORMATION FOR SEQ ID NO:1313:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 115 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1313:
 GCBCCGCTG GBGCCCTGGG GCCCCCTGT CTTCTGGGG BGCGCCTCCT CGGCCBGCTC 60
 CBCGTCCCG BTCTGCTTT CBGTGCTCBT GGTGTCCTT CCBGGGGBGB GBGGG 115

(2) INFORMATION FOR SEQ ID NO:1314:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 331 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1314:
 GCTGGTCCTC TGCTGTCCTT GCTGGTGCTC BTGGTGTCTT TTCCGCCCTG GGGCCCCCT 60
 GTCTTCTTGG GGCCTCTTCC CTCTGGGGGC CGTCTCTCTC CCTCTCTTGC GTCTCTCTCT 120
 TTCTCTCTCT CTCTTCCCTT TCCCGCTCT TTTGTGCTCG GTGTCTGGTT TTCTCTCTCC 180
 GCTGGCTGCC TGTCTGGCCT GCGCTCTTGG CCTGTGCTGT TCCTCCTCCG GTTCTCTGTCC 240
 TCTCTGTCTG TCGCCCCCTC TGGGGTCTCC CTCTGGCGTG GTGGTCTTGT TGCTTGGGCT 300

GGGCTCCGTG TCTCCBGTC TCBTGGTGTC C

331

(2) INFORMATION FOR SEQ ID NO:1315:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 373 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1315:

GCTGBGGGBG	CGTCTGCTGG	CGCTGGTCCT	CTGCTGTCCT	TGCTGGTGCT	CBTGGTGTCC	60
TTTCCGCCCT	GGGGCCCCC	TGTCTTCTTG	GGGCCTCTTC	CCTCTGGGGG	CCGTCTCTCT	120
CCCTCTCTTG	CGTCTCTCTC	TTTCTCTCTC	TCTCTTCCCC	TTTCCCGCTC	TTTCTGTCTC	180
GGTGTCTGGT	TTTCTCTCTC	CGCTGGCTGC	CTGTCTGGCC	TGCGCTCTTG	GCCTGTGCTG	240
TTCCTCCTCC	GGTTCCTGTC	CTCTCTGTCT	GTGCCCCCT	CTGGGGTCTC	CCTCTGGCGT	300
GGTGGTCTTG	TTGCTTGGGC	TGGGCTCCGT	GTCTCCBGTC	CTCBTGGTGT	CCGTGBGGG	360
BGCGTCTGCT	GGC					373

(2) INFORMATION FOR SEQ ID NO:1316:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1316:

CCCCCGTCTG	CTGCTCCTCG	TGCCG	25
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(2) INFORMATION FOR SEQ ID NO:1317:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1317:

CCTCGTCCTT	CATGGTACCG	TCGGTGTGGT	GGC	33
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(2) INFORMATION FOR SEQ ID NO:1318:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1318:

CTCGGGTGGG	CCGGTGGTG	19
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(2) INFORMATION FOR SEQ ID NO:1319:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1319:

GGGCGCGCGC	GCTCGCGT	18
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(2) INFORMATION FOR SEQ ID NO:1320:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 49 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1320:

GGCTCCGGCT	CTTCTTTCCC	GGCTCCGTCG	GCCCGGGGCG	CTTGGTCTC	49
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(2) INFORMATION FOR SEQ ID NO:1321:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: Genomic DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1321:
CCTCGTCCTT CBTGGTBCCG 20

(2) INFORMATION FOR SEQ ID NO:1322:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1322:
CCCGTTCGCC TGGCGC 16

(2) INFORMATION FOR SEQ ID NO:1323:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1323:
GCGCTGCGGG TTCCTC 16

(2) INFORMATION FOR SEQ ID NO:1324:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1324:
GTGGGTTTCT CCCC GCCGTT CTC 23

(2) INFORMATION FOR SEQ ID NO:1325:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1325:
CGGTCTGTTG CCTTTGTGGG 20

(2) INFORMATION FOR SEQ ID NO:1326:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1326:
CTTCTTGCT TTTTGGCT 18

(2) INFORMATION FOR SEQ ID NO:1327:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1327:
GTTCTTTTCC TGCTTGGC 18

(2) INFORMATION FOR SEQ ID NO:1328:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1328:
GTCTTTTCCT TTCTT 15

(2) INFORMATION FOR SEQ ID NO:1329:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1329:
 TGTGCTCGGT TGTGGGTC 18

(2) INFORMATION FOR SEQ ID NO:1330:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1330:
 CGCTGGTCCT TTGCC 15

(2) INFORMATION FOR SEQ ID NO:1331:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1331:
 CTGTGTGTTT CTGCTG 16

(2) INFORMATION FOR SEQ ID NO:1332:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1332:
 CCCGTTGCGC TGGCGC 16

(2) INFORMATION FOR SEQ ID NO:1333:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1333:
 GCGCTGCGGG TTCCTC 16

(2) INFORMATION FOR SEQ ID NO:1334:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1334:
 GTGGGTTTCT CCCCGCCGTT CTC 23

(2) INFORMATION FOR SEQ ID NO:1335:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1335:
 CGGTCGTGTTG CCTTTGTGGG 20

(2) INFORMATION FOR SEQ ID NO:1336:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1336:
CTTCTTGCT TTTGGCT 18

(2) INFORMATION FOR SEQ ID NO:1337:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1337:
GTTCTTTTCC TGCTTGGC 18

(2) INFORMATION FOR SEQ ID NO:1338:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1338:
GTCTTTTCCT TTCTT 15

(2) INFORMATION FOR SEQ ID NO:1339:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1339:
TGTGCTCGGT TGTGGGTC 18

(2) INFORMATION FOR SEQ ID NO:1340:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1340:
CGCTGGTCCT TTGCC 15

(2) INFORMATION FOR SEQ ID NO:1341:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1341:
CTGTGTGTT CTGCTG 16

(2) INFORMATION FOR SEQ ID NO:1342:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1342:
GCGTCCGGTG GCCGCCGC 18

(2) INFORMATION FOR SEQ ID NO:1343:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1343:
GCCTCTCTCC TCTCCCC 17

(2) INFORMATION FOR SEQ ID NO:1344:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1344:
 GTGGCCCTGT CGGGCGGG 18

(2) INFORMATION FOR SEQ ID NO:1345:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1345:
 TCCTGCCGTC CTGTCTCCTT T 21

(2) INFORMATION FOR SEQ ID NO:1346:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1346:
 TCTTTTGCTG TCTTGT 16

(2) INFORMATION FOR SEQ ID NO:1347:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1347:
 CTTCCCGTCT CTGCTTT 17

(2) INFORMATION FOR SEQ ID NO:1348:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1348:
 GTCTGTCTC CCCGTCTCCT CCC 23

(2) INFORMATION FOR SEQ ID NO:1349:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1349:
 ACTGCTTCTC CCGGGG 16

(2) INFORMATION FOR SEQ ID NO:1350:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1350:
 GCTTCCCCGG CTTC 14

(2) INFORMATION FOR SEQ ID NO:1351:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1351:
GGGTGGCCGG TGTCCGGGC TCCGGCGCGG CGGC 34

(2) INFORMATION FOR SEQ ID NO:1352:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1352:
GGCTTCGGCT GC 12

(2) INFORMATION FOR SEQ ID NO:1353:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1353:
GGGTGGGTGG CGCGG 15

(2) INFORMATION FOR SEQ ID NO:1354:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1354:
GCTGCCGGGT CCGCGCGGCG CCTGGGCC 28

(2) INFORMATION FOR SEQ ID NO:1355:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1355:
CTTGTGCTGC TTTT 14

(2) INFORMATION FOR SEQ ID NO:1356:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1356:
TGCTTGTTCC GTTC 14

(2) INFORMATION FOR SEQ ID NO:1357:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1357:
TGGCTGCTCC GGTCTGTGTT GTGTTGTTT TG 32

(2) INFORMATION FOR SEQ ID NO:1358:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1358:
TTTCTTCTTG GGTGTGGG 18

(2) INFORMATION FOR SEQ ID NO:1359:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1359:
 CCTTGCGGTT TTGG 14

(2) INFORMATION FOR SEQ ID NO:1360:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1360:
 CTGTGGGCC TTTG 14

(2) INFORMATION FOR SEQ ID NO:1361:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1361:
 GGGCCTTGGC TTCTGGCTC 19

(2) INFORMATION FOR SEQ ID NO:1362:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 125 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1362:
 CATCCACATG ATTGCTTAGA TTTGTGCTGT ATCTCTCAGG ATTATCACTG ATTACACATC 60
 CAACCACTGC CAGCCAAAAG GATGCCCTGA GGCAAAGGGT TTCCATCTTG AGGCAAATTT 120
 GAGGA 125

(2) INFORMATION FOR SEQ ID NO:1363:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 125 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1363:
 CBTCCBCBTG BTTGCTTBGB TTTGTGCTGT BTCTCTCBGG BTTBTCBCTG BTTBCBCBTC 60
 CBBCCBGTC CBGCCBBBBG GBTGCCCTGB GGCB BBGGGT TTCCBTCTTG BGGCBBBTTT 120
 GBGG 125

(2) INFORMATION FOR SEQ ID NO:1364:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1364:
 CGTGGTCGCT CCGC 14

(2) INFORMATION FOR SEQ ID NO:1365:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1365:
 GTTCTCTGG TTCCTCCG 18

(2) INFORMATION FOR SEQ ID NO:1366:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1366:
 GTCCCGCGGG GTGCTG 16

(2) INFORMATION FOR SEQ ID NO:1367:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1367:
 TCTGGTCGCT GTCGT 15

(2) INFORMATION FOR SEQ ID NO:1368:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1368:
 GGCTTGGGTC TCCGGGCG 18

(2) INFORMATION FOR SEQ ID NO:1369:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1369:
 GTTTCCTTCC TTTTCCGC 18

(2) INFORMATION FOR SEQ ID NO:1370:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1370:
 GTCCTGTCGT GGCGCCTGGG GCTC 24

(2) INFORMATION FOR SEQ ID NO:1371:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1371:
 TTCTTTGTG GGCT 14

(2) INFORMATION FOR SEQ ID NO:1372:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1372:
 CTTTGGTGGC TGTGGCTG 18

(2) INFORMATION FOR SEQ ID NO:1373:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1373:

TGGTCTCTGT GGTG

15

(2) INFORMATION FOR SEQ ID NO:1374:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1374:

CTGCCCTGGG TCTGG

15

(2) INFORMATION FOR SEQ ID NO:1375:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 46 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1375:

GGGTGTGGCC TTGGGGCCGT CCTCTGGCTC CTCCTCGTGG GCCCCC

46

(2) INFORMATION FOR SEQ ID NO:1376:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 265 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1376:

GGGCTAAGAT GATCCACATC ACTACCACGT TGCCCAACCAC AGAGGTCACC ACAATGACCG	60
TGTAGGCAGC TGCCCAAAGG ACAATTTGCC AGGCTGGTTG CACGAACTGA TTGGGTTC	120
AGGTGTTAGT GGAGATGTTT GGGGAGAGGT CTGAGTCCAC CGGGAGGACG TTATCCATT	180
CGAAGCTAGG CGGTAAAGCC CTACTATCTG TACACAACCC CCCTCTGCAG CAGAGTCCTG	240
TCGTGGCGCC TGGGGCTCAG GGTCC	265

(2) INFORMATION FOR SEQ ID NO:1377:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 265 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1377:

GGGCTBBGBT GBTCCBCBTC BCTBCCBCGT TGCCCBCCBC BGBGTCBCC BCBTGBCCG	60
TGTBGGCBGC TGCCCBGBG BCBTTTGCC BGGCTGGTTG CBCGBBCTGB TTGGGTTC	120
BGGTGTBTGT GGBGBTGTTT GGGGBGBGGT CTBGTCCBC CGGGBGBGCB TTBTCCBTT	180
CGBBGCTBGG CGGTBBBGCC CTBCTBTCTG TBCBCBCCCC CCCTCTGCBG CBGBGTCCTG	240
TCGTGGCGCC TGGGGCTCBG GGTCC	265

(2) INFORMATION FOR SEQ ID NO:1378:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1378:

CGTTTCTTC TCTC

14

(2) INFORMATION FOR SEQ ID NO:1379:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1379:

GCTGGTTTC CTTCC

16

(2) INFORMATION FOR SEQ ID NO:1380:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1380:
 TGGCAGTGGG TGGGGGTGGG GGTGGGGTGG C 31

(2) INFORMATION FOR SEQ ID NO:1381:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1381:
 TTCCTTGTTC CTGGGGGTGT CCT 23

(2) INFORMATION FOR SEQ ID NO:1382:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1382:
 CTTGCTCTGG GCTTTTCT 18

(2) INFORMATION FOR SEQ ID NO:1383:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1383:
 CCCCTTTTCC TTCC 14

(2) INFORMATION FOR SEQ ID NO:1384:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1384:
 TGTCTGTTTT CCTGGGG 17

(2) INFORMATION FOR SEQ ID NO:1385:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1385:
 CTCTCCTCTG TCTCTGTGT 19

(2) INFORMATION FOR SEQ ID NO:1386:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1386:
 CCTTGCCCTG GCCC 14

(2) INFORMATION FOR SEQ ID NO:1387:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1387:
 TCTTCCCTCT CCTGTCTCCT GT 22

(2) INFORMATION FOR SEQ ID NO:1388:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1388:
CCCTGTGTTC CGCCC 15

(2) INFORMATION FOR SEQ ID NO:1389:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1389:
GTCTTCCCTC TCCTG 15

(2) INFORMATION FOR SEQ ID NO:1390:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1390:
ACCTCCTTTT CCTCCG 16

(2) INFORMATION FOR SEQ ID NO:1391:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1391:
CTGGGTGGGG CCCTG 15

(2) INFORMATION FOR SEQ ID NO:1392:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1392:
CCTGTTCTCT GCTCCC 16

(2) INFORMATION FOR SEQ ID NO:1393:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1393:
TGGCTTGGGG TTTCTTCTG 19

(2) INFORMATION FOR SEQ ID NO:1394:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1394:
TGTGTCTTCT TCCTCTGTT 19

(2) INFORMATION FOR SEQ ID NO:1395:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1395:
GGCTGGCTTT CTCCTTC 17

(2) INFORMATION FOR SEQ ID NO:1396:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1396:
TTTTGTCTTC CTGGG 15

(2) INFORMATION FOR SEQ ID NO:1397:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1397:
TGCCCCCTTCT TCCTTTCTTG GG 22

(2) INFORMATION FOR SEQ ID NO:1398:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1398:
TCCTTGGTGC TTGGGCTGGG 20

(2) INFORMATION FOR SEQ ID NO:1399:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1399:
CTGTGCGTCC GTCTGCTGG 19

(2) INFORMATION FOR SEQ ID NO:1400:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1400:
GGGGCCGGGG TGGCTGGGCC CTGCTTGCCG C 31

(2) INFORMATION FOR SEQ ID NO:1401:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1401:
ACGACCCCGG GCCGACCCGA G 21

(2) INFORMATION FOR SEQ ID NO:1402:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1402:
GCTCGGGGGG CTGTGTTCTG GCGCTGGTGG G 31

(2) INFORMATION FOR SEQ ID NO:1403:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1403:
CTTGGGCCCC TCTGGGGGCT GGGTT 25

(2) INFORMATION FOR SEQ ID NO:1404:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1404:
TCCTGCTGCG CCTGGGCGCT G 21

(2) INFORMATION FOR SEQ ID NO:1405:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1405:
GCGTCTTGGG GTGC 14

(2) INFORMATION FOR SEQ ID NO:1406:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1406:
GGGGCCGGGG GGCCGGGG 19

(2) INFORMATION FOR SEQ ID NO:1407:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1407:
GCCGCTGTTC GTGGGCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:1408:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1408:
GGTGCCTGTG GCTGCC 16

(2) INFORMATION FOR SEQ ID NO:1409:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1409:
GGTTGCCCG GTTGGTGGC 19

(2) INFORMATION FOR SEQ ID NO:1410:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1410:
GCCGTCCTGC TGCCGGT 17

(2) INFORMATION FOR SEQ ID NO:1411:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1411:
CGTTGGCTGG GTCCCCCGC 20

(2) INFORMATION FOR SEQ ID NO:1412:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1412:
CCGTTTCCTG GGGTCC 16

(2) INFORMATION FOR SEQ ID NO:1413:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1413:
GCGTGGGGTG CTCC 14

(2) INFORMATION FOR SEQ ID NO:1414:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1414:
GGTTCCTCGT GCCG 14

(2) INFORMATION FOR SEQ ID NO:1415:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1415:
CTGCTGCCTT GTCTTCC 18

(2) INFORMATION FOR SEQ ID NO:1416:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1416:
GGCCGTGGCG GCGTGGTGGT CC 22

(2) INFORMATION FOR SEQ ID NO:1417:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1417:
GCCCCCCTG GCCTTCTGCT C 21

(2) INFORMATION FOR SEQ ID NO:1418:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1418:
 GGGGTCTGGC TGGT 14

(2) INFORMATION FOR SEQ ID NO:1419:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1419:
 TGCCGGTGCC CTTGGCGGC 19

(2) INFORMATION FOR SEQ ID NO:1420:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1420:
 GGTCTTCTTC CTGGTG 16

(2) INFORMATION FOR SEQ ID NO:1421:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1421:
 GCTCTGGGCC CGGCCGGTCT CGG 23

(2) INFORMATION FOR SEQ ID NO:1422:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1422:
 GCGTCTCGTG TTCG 14

(2) INFORMATION FOR SEQ ID NO:1423:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1423:
 CTCTTGCTGT GTTCCGGCCG 20

(2) INFORMATION FOR SEQ ID NO:1424:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1424:
 CTCCTTCCTC TTCCGCCGCC 20

(2) INFORMATION FOR SEQ ID NO:1425:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1425:
GCCGCTCCCC GCCC 14

(2) INFORMATION FOR SEQ ID NO:1426:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1426:
GCTCGTCGCC CTGGCCC 17

(2) INFORMATION FOR SEQ ID NO:1427:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1427:
GGCCTCCTCC TGGCCGC 17

(2) INFORMATION FOR SEQ ID NO:1428:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1428:
TGTCCTCGGC GCGGCCTTG GC 22

(2) INFORMATION FOR SEQ ID NO:1429:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1429:
GCTCCGTTTG GGGCTG 16

(2) INFORMATION FOR SEQ ID NO:1430:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1430:
CCTCTGGCGC TTCC 14

(2) INFORMATION FOR SEQ ID NO:1431:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1431:
GGCCCTCGGC CTGGGCGCTC 20

(2) INFORMATION FOR SEQ ID NO:1432:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1432:
TCTTCCGCCT GTGC 14

(2) INFORMATION FOR SEQ ID NO:1433:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1433:
 TGGTGGCCCT CGTGG 15

(2) INFORMATION FOR SEQ ID NO:1434:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1434:
 GCCCTCCTG GCCTCCGGTG TCC 23

(2) INFORMATION FOR SEQ ID NO:1435:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1435:
 TGTGGTCCCC CGGCTGGT 18

(2) INFORMATION FOR SEQ ID NO:1436:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1436:
 GGCCGGGCCG GTTGGGCGGG C 21

(2) INFORMATION FOR SEQ ID NO:1437:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1437:
 GTGGGCGCCG GCGGGTCCTC C 21

(2) INFORMATION FOR SEQ ID NO:1438:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1438:
 GGGCTGCCCT TCTCC 15

(2) INFORMATION FOR SEQ ID NO:1439:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1439:
 GCCGGGGGTC CCGC 14

(2) INFORMATION FOR SEQ ID NO:1440:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1440:

GCTCCTGCTG TTCCCTGGGC TCTTCTGCC

29

(2) INFORMATION FOR SEQ ID NO:1441:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1441:

TCTCTCCTGG GTGGGTGCTG GGTGCCG

27

(2) INFORMATION FOR SEQ ID NO:1442:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1442:

GGGTCTCCGG GCTTG

15

(2) INFORMATION FOR SEQ ID NO:1443:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1443:

CCCCGCGCTG CTGGGCGTTC TGC

23

(2) INFORMATION FOR SEQ ID NO:1444:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1444:

GGTCTTGGGG TTGTC

15

(2) INFORMATION FOR SEQ ID NO:1445:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1445:

TGTGGCCCCG CTCG

14

(2) INFORMATION FOR SEQ ID NO:1446:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1446:

TGTCGCCCTC CGTCGCC

17

(2) INFORMATION FOR SEQ ID NO:1447:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1447:

CGTCGCCGGC CTCGTCC

17

(2) INFORMATION FOR SEQ ID NO:1448:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1448:
 CCTCCTGGGT GCGC 14

(2) INFORMATION FOR SEQ ID NO:1449:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1449:
 GGCGGGCTGG TCCT 14

(2) INFORMATION FOR SEQ ID NO:1450:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1450:
 GCGGTTTTC TCCTTCCTGG 20

(2) INFORMATION FOR SEQ ID NO:1451:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1451:
 CTGCCTCCCC GGGGT 15

(2) INFORMATION FOR SEQ ID NO:1452:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1452:
 TTCTGCTGCT TGCTG 15

(2) INFORMATION FOR SEQ ID NO:1453:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1453:
 CTTCTTTCCC GTCTCC 16

(2) INFORMATION FOR SEQ ID NO:1454:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1454:
 CTTCTTTCCC GTCTCC 16

(2) INFORMATION FOR SEQ ID NO:1455:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1455:
 TTTTGCCTC TTG 14

(2) INFORMATION FOR SEQ ID NO:1456:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1456:
GGTTCCTGTT GTTCTT 16

(2) INFORMATION FOR SEQ ID NO:1457:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1457:
GGCCTGCTTG GTGGCG 16

(2) INFORMATION FOR SEQ ID NO:1458:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1458:
GCTTGTCGCT TTCC 14

(2) INFORMATION FOR SEQ ID NO:1459:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1459:
TCTCTCTTCT CTTGGGTCTC CGCTTCTCGT CCTGCC 36

(2) INFORMATION FOR SEQ ID NO:1460:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1460:
TTTTCTGTGC TCTGTCGC 18

(2) INFORMATION FOR SEQ ID NO:1461:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1461:
GCCGTTCTCTC CTCC 14

(2) INFORMATION FOR SEQ ID NO:1462:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1462:
GGCGTCCTCC TGCCC 15

(2) INFORMATION FOR SEQ ID NO:1463:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1463:
 TGTGCTGTTT GCCTCGG 17

(2) INFORMATION FOR SEQ ID NO:1464:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1464:
 GTGGTGCGGG TCCC 14

(2) INFORMATION FOR SEQ ID NO:1465:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1465:
 GGTGCTCCCC CGGC 14

(2) INFORMATION FOR SEQ ID NO:1466:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1466:
 GGGCCGGCTG GTGCCTGGG C 21

(2) INFORMATION FOR SEQ ID NO:1467:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1467:
 CTGTCTGGTG GGGTGTGGGG CC 22

(2) INFORMATION FOR SEQ ID NO:1468:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1468:
 GCTGGGTGG GGGTGTGGTG 20

(2) INFORMATION FOR SEQ ID NO:1469:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1469:
 GGCTCTTCTG TGGCC 15

(2) INFORMATION FOR SEQ ID NO:1470:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1470:
 TGTGGGGCTG TTGGTG 16

(2) INFORMATION FOR SEQ ID NO:1471:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1471:
TCTCTGTGGG CGTGTG 16

(2) INFORMATION FOR SEQ ID NO:1472:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1472:
CTGGGTCTTG GGGCTTC 17

(2) INFORMATION FOR SEQ ID NO:1473:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1473:
CTCCCTTGTG CTGGG 15

(2) INFORMATION FOR SEQ ID NO:1474:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1474:
TGCGGCCTCC CCGC 14

(2) INFORMATION FOR SEQ ID NO:1475:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1475:
CCCCCTTCTG GGCC 14

(2) INFORMATION FOR SEQ ID NO:1476:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1476:
GGTGGCCTGG CTCCTGTGG 20

(2) INFORMATION FOR SEQ ID NO:1477:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1477:
GCGCTTCTGG CTCTTG 16

(2) INFORMATION FOR SEQ ID NO:1478:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1478:
CCCTGTCCTT CTTGCCTCG T 21

(2) INFORMATION FOR SEQ ID NO:1479:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1479:
GGCTGCTGGG CTGC 14

(2) INFORMATION FOR SEQ ID NO:1480:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1480:
GTTGGGCTTG GCCGGG 17

(2) INFORMATION FOR SEQ ID NO:1481:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1481:
CTGCCCGGTG CCTCC 15

(2) INFORMATION FOR SEQ ID NO:1482:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1482:
TCTTGGCTGG TCCCTCGT 18

(2) INFORMATION FOR SEQ ID NO:1483:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1483:
TGTCTTGGG CCCC 14

(2) INFORMATION FOR SEQ ID NO:1484:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1484:
GCTCCCGCTG CTCGGCCTCC GT 22

(2) INFORMATION FOR SEQ ID NO:1485:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1485:
GTTCTTTGGC CTCTTGCTCC 20

(2) INFORMATION FOR SEQ ID NO:1486:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1486:
 GCCTGCTGTC TTGTCC 16

(2) INFORMATION FOR SEQ ID NO:1487:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1487:
 CGTCCCCTCC TCGTTGCGT TTC 23

(2) INFORMATION FOR SEQ ID NO:1488:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1488:
 CCTCTTCCTT GTCTTCCA 18

(2) INFORMATION FOR SEQ ID NO:1489:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1489:
 GGCCTTCCTC CGCTTCCGCT GC 22

(2) INFORMATION FOR SEQ ID NO:1490:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1490:
 TGGGGCCCGC GCCGG 15

(2) INFORMATION FOR SEQ ID NO:1491:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1491:
 GGGGGCGCTC GGCTCCGCGG CTCCTCCCC GG 32

(2) INFORMATION FOR SEQ ID NO:1492:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1492:
 CTGGGGGGTC CTGG 14

(2) INFORMATION FOR SEQ ID NO:1493:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1493:
 TCTCCGGGGC CTGCGGCTCG C 21

(2) INFORMATION FOR SEQ ID NO:1494:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1494:
 GGGCTCGGGG CTGCGTGCGC C 21

(2) INFORMATION FOR SEQ ID NO:1495:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1495:
 GCGCGCGGCG TCCGCGGTG 19

(2) INFORMATION FOR SEQ ID NO:1496:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1496:
 GGTGGCGCTG TCCCGCC 17

(2) INFORMATION FOR SEQ ID NO:1497:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1497:
 GTGGTGTGTC TCCGTCTCG TCCTGCGCCG TC 32

(2) INFORMATION FOR SEQ ID NO:1498:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1498:
 CTGGTCTGCC CGTGG 15

(2) INFORMATION FOR SEQ ID NO:1499:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1499:
 GTCCCTGGGC GTGGTGG 17

(2) INFORMATION FOR SEQ ID NO:1500:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1500:
 GGGGCGTCTG GTGC 14

(2) INFORMATION FOR SEQ ID NO:1501:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1501:
 CTCGTCTGCC CCGTG 15

(2) INFORMATION FOR SEQ ID NO:1502:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: cDNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1502:
 GGGCTTCGGG CTCGG 15

(2) INFORMATION FOR SEQ ID NO:1503:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1503:
 GGCTGTTCGT CCCCCCTGCC GCTCTGTGGC CTCC 34

(2) INFORMATION FOR SEQ ID NO:1504:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1504:
 GGGGCTCCTC GTTTTC 16

(2) INFORMATION FOR SEQ ID NO:1505:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1505:
 GCTGCTTCGG GTGTCCTTCT C 21

(2) INFORMATION FOR SEQ ID NO:1506:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1506:
 GGCGTGTGGC CCCGG 15

(2) INFORMATION FOR SEQ ID NO:1507:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1507:
 GTCCCGGCC TGCTGGGCTG GCGGGGTC 29

(2) INFORMATION FOR SEQ ID NO:1508:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1508:
 GCTGCCCTGG GCTTCTGGCC CGTCT 25

(2) INFORMATION FOR SEQ ID NO:1509:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1509:
 GGTTGTCTGT CGGT 14

(2) INFORMATION FOR SEQ ID NO:1510:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1510:
 GCTTGTCTCG GGTTTCTGG 19

(2) INFORMATION FOR SEQ ID NO:1511:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1511:
 CCTCTGTGCT GGGC 14

(2) INFORMATION FOR SEQ ID NO:1512:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1512:
 GCTTCTCTGC CTCCTGCTCC 20

(2) INFORMATION FOR SEQ ID NO:1513:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1513:
 GCCCTCCTGG TGGCTC 16

(2) INFORMATION FOR SEQ ID NO:1514:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1514:
GGCTGGGGGT GCCCGTGCG 19

(2) INFORMATION FOR SEQ ID NO:1515:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1515:
GGGGTGGGTG TGGGGTGTT 19

(2) INFORMATION FOR SEQ ID NO:1516:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1516:
TTCGGGGTCC TCCCCTTCCC 20

(2) INFORMATION FOR SEQ ID NO:1517:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1517:
GTTTCATCTT GGCTTTATCC 20

(2) INFORMATION FOR SEQ ID NO:1518:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1518:
TCTCCCCCTG TTCTCCCC 19

(2) INFORMATION FOR SEQ ID NO:1519:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1519:
TCTCCTGCTC TGGRGCTCC TC 22

(2) INFORMATION FOR SEQ ID NO:1520:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1520:
TTCCCTCCCT CCCCTGCC 18

(2) INFORMATION FOR SEQ ID NO:1521:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1521:
GTGTTGTCTG TGGGTGTCC 19

(2) INFORMATION FOR SEQ ID NO:1522:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1522:
 GTTTCGCTCT TGTTGCCC 18

(2) INFORMATION FOR SEQ ID NO:1523:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1523:
 TGGGCCCTTC CCTGCTGG 18

(2) INFORMATION FOR SEQ ID NO:1524:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1524:
 GGGGGAGTTT CATCTTGG 18

(2) INFORMATION FOR SEQ ID NO:1525:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1525:
 GGGGGBGTTT CBTCTTGGCT TT 22

(2) INFORMATION FOR SEQ ID NO:1526:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1526:
 GGGGGBGTTT CBTCTTGGCT T 21

(2) INFORMATION FOR SEQ ID NO:1527:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1527:
 GGGGGBGTTT CBTCTTGGCT 20

(2) INFORMATION FOR SEQ ID NO:1528:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1528:
 GGGGGBGTTT CBTCTTGGC 19

(2) INFORMATION FOR SEQ ID NO:1529:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1529:

GGGGGBGTTT CBTCTTGG

18

(2) INFORMATION FOR SEQ ID NO:1530:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1530:

GGGGGBGTTT CBTCTTG

17

(2) INFORMATION FOR SEQ ID NO:1531:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1531:

GGGGGBGTTT CBTCTT

16

(2) INFORMATION FOR SEQ ID NO:1532:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1532:

GGGGGBGTTT CBTCT

15

(2) INFORMATION FOR SEQ ID NO:1533:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1533:

GGGGGBGTTT CBTC

14

(2) INFORMATION FOR SEQ ID NO:1534:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1534:

GGGGGBGTTT CBT

13

(2) INFORMATION FOR SEQ ID NO:1535:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1535:

GGGGGBGTTT CB

12

(2) INFORMATION FOR SEQ ID NO:1536:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1536:

GGGGBGTTTC BTCTTGGCTT T

21

(2) INFORMATION FOR SEQ ID NO:1537:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1537:
 GGGGBGTTTC BTCTTGGCTT 20

(2) INFORMATION FOR SEQ ID NO:1538:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1538:
 GGGGBGTTTC BTCTTGGCT 19

(2) INFORMATION FOR SEQ ID NO:1539:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1539:
 GGGGBGTTTC BTCTTGGC 18

(2) INFORMATION FOR SEQ ID NO:1540:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1540:
 GGGGBGTTTC BTCTTGG 17

(2) INFORMATION FOR SEQ ID NO:1541:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1541:
 GGGGBGTTTC BTCTTG 16

(2) INFORMATION FOR SEQ ID NO:1542:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1542:
 GGGGBGTTTC BTCTT 15

(2) INFORMATION FOR SEQ ID NO:1543:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1543:
 GGGGBGTTTC BTCT 14

(2) INFORMATION FOR SEQ ID NO:1544:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1544:
 GGGGBGTTTC BTC 13

(2) INFORMATION FOR SEQ ID NO:1545:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1545:
 GGGGBGTTTC BT 12

(2) INFORMATION FOR SEQ ID NO:1546:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1546:
 GGGBGTTTCB TCTTGGCTT 20

(2) INFORMATION FOR SEQ ID NO:1547:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1547:
 GGGBGTTTCB TCTTGGCTT 19

(2) INFORMATION FOR SEQ ID NO:1548:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1548:
 GGGBGTTTCB TCTTGGCT 18

(2) INFORMATION FOR SEQ ID NO:1549:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1549:
 GGGBGTTTCB TCTTGGC 17

(2) INFORMATION FOR SEQ ID NO:1550:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1550:
 GGGBGTTTCB TCTTGG 16

(2) INFORMATION FOR SEQ ID NO:1551:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1551:
 GGGBGTTTCB TCTTG 15

(2) INFORMATION FOR SEQ ID NO:1552:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1552: 14
GGGBGTTTCB TCTT

(2) INFORMATION FOR SEQ ID NO:1553:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1553: 13
GGGBGTTTCB TCT

(2) INFORMATION FOR SEQ ID NO:1554:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1554: 12
GGGBGTTTCB TC

(2) INFORMATION FOR SEQ ID NO:1555:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1555: 19
GGBGTTTCBT CTTGGCTTT

(2) INFORMATION FOR SEQ ID NO:1556:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1556: 18
GGBGTTTCBT CTTGGCTT

(2) INFORMATION FOR SEQ ID NO:1557:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1557: 17
GGBGTTTCBT CTTGGCT

(2) INFORMATION FOR SEQ ID NO:1558:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1558: 16
GGBGTTTCBT CTTGGC

(2) INFORMATION FOR SEQ ID NO:1559:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1559: 15
GGBGTTTCBT CTTGG

(2) INFORMATION FOR SEQ ID NO:1560:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1560:
 GGBGTTTCBT CTTG 14

(2) INFORMATION FOR SEQ ID NO:1561:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1561:
 GGBGTTTCBT CTT 13

(2) INFORMATION FOR SEQ ID NO:1562:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1562:
 GGBGTTTCBT CT 12

(2) INFORMATION FOR SEQ ID NO:1563:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1563:
 GBGTTTCBTC TTGGCTTT 18

(2) INFORMATION FOR SEQ ID NO:1564:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1564:
 GBGTTTCBTC TTGGCTT 17

(2) INFORMATION FOR SEQ ID NO:1565:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1565:
 GBGTTTCBTC TTGGCT 16

(2) INFORMATION FOR SEQ ID NO:1566:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1566:
 GBGTTTCBTC TTGGC 15

(2) INFORMATION FOR SEQ ID NO:1567:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1567: 14
GBGTTTCBTC TTGG
(2) INFORMATION FOR SEQ ID NO:1568:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1568: 13
GBGTTTCBTC TTG
(2) INFORMATION FOR SEQ ID NO:1569:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1569: 12
GBGTTTCBTC TT
(2) INFORMATION FOR SEQ ID NO:1570:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1570: 17
BGTTCBTCT TGGCTT
(2) INFORMATION FOR SEQ ID NO:1571:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1571: 16
BGTTCBTCT TGGCTT
(2) INFORMATION FOR SEQ ID NO:1572:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1572: 16
BGTTCBTCT TGGCTT
(2) INFORMATION FOR SEQ ID NO:1573:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1573: 15
BGTTCBTCT TGGCT
(2) INFORMATION FOR SEQ ID NO:1574:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1574: 14
BGTTCBTCT TGGC
(2) INFORMATION FOR SEQ ID NO:1575:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1575:
 BGTTCBTCT TGG 13

(2) INFORMATION FOR SEQ ID NO:1576:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1576:
 BGTTCBTCT TG 12

(2) INFORMATION FOR SEQ ID NO:1577:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1577:
 GTTTCBTCTT GGCTTT 16

(2) INFORMATION FOR SEQ ID NO:1578:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1578:
 GTTTCBTCTT GGCTT 15

(2) INFORMATION FOR SEQ ID NO:1579:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1579:
 GTTTCBTCTT GGCT 14

(2) INFORMATION FOR SEQ ID NO:1580:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1580:
 GTTTCBTCTT GGC 13

(2) INFORMATION FOR SEQ ID NO:1581:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1581:
 GTTTCBTCTT GG 12

(2) INFORMATION FOR SEQ ID NO:1582:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1582:
TTTCBTCTTG GCTTT 15

(2) INFORMATION FOR SEQ ID NO:1583:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1583:
TTTCBTCTTG GCTT 14

(2) INFORMATION FOR SEQ ID NO:1584:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1584:
TTTCBTCTTG GCT 13

(2) INFORMATION FOR SEQ ID NO:1585:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1585:
TTTCBTCTTG GC 12

(2) INFORMATION FOR SEQ ID NO:1586:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1586:
TTCBTCTTGG CTTT 14

(2) INFORMATION FOR SEQ ID NO:1587:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1587:
TTCBTCTTGG CTT 13

(2) INFORMATION FOR SEQ ID NO:1588:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1588:
TTCBTCTTGG CT 12

(2) INFORMATION FOR SEQ ID NO:1589:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1589:
TCBTCTTGGC TTT 13

(2) INFORMATION FOR SEQ ID NO:1590:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1590:
 TCBTCTTGGC TT 12

(2) INFORMATION FOR SEQ ID NO:1591:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1591:
 GGGGGGGTTT CBTCTTGGCT TT 22

(2) INFORMATION FOR SEQ ID NO:1592:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1592:
 GGGGGGTTTC BTCTTGGCTT T 21

(2) INFORMATION FOR SEQ ID NO:1593:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1593:
 GGGGGTTTCB TCTTGGCTTT 20

(2) INFORMATION FOR SEQ ID NO:1594:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1594:
 GGBGTTTCBT CTGGCTTT 19

(2) INFORMATION FOR SEQ ID NO:1595:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1595:
 GBGTTTCBTC TTGGCTTT 18

(2) INFORMATION FOR SEQ ID NO:1596:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1596:
 BGTTTCBTCT TGGCTTT 17

(2) INFORMATION FOR SEQ ID NO:1597:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1597:

GTTTCBTCTT GGCTTT

16

(2) INFORMATION FOR SEQ ID NO:1598:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1598:

TTTCBTCTTG GCTTT

15

(2) INFORMATION FOR SEQ ID NO:1599:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1599:

TTCBTCTTGG CTTT

14

(2) INFORMATION FOR SEQ ID NO:1600:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1600:

TCBTCTTGGC TTT

13

(2) INFORMATION FOR SEQ ID NO:1601:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1601:

CBTCTTGGCT TT

12

(2) INFORMATION FOR SEQ ID NO:1602:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1602:

GGGGGBGTTT CBTCTTGGCT T

21

(2) INFORMATION FOR SEQ ID NO:1603:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1603:

GGGGBGTTTC BTCTTGGCTT

20

(2) INFORMATION FOR SEQ ID NO:1604:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1604:

GGGBGTTTCB TCTTGGCTT

19

(2) INFORMATION FOR SEQ ID NO:1605:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1605:
 GGBGTTTCBT CTTGGCTT 18

(2) INFORMATION FOR SEQ ID NO:1606:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1606:
 GBGTTTCBTC TTGGCTT 17

(2) INFORMATION FOR SEQ ID NO:1607:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1607:
 BGTTTCBTCT TGGCTT 16

(2) INFORMATION FOR SEQ ID NO:1608:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1608:
 GTTTCBTCTT GGCTT 15

(2) INFORMATION FOR SEQ ID NO:1609:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1609:
 TTTCBTCTTG GCTT 14

(2) INFORMATION FOR SEQ ID NO:1610:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1610:
 TTCBTCTTGG CTT 13

(2) INFORMATION FOR SEQ ID NO:1611:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1611:
 TCBTCTTGGC TT 12

(2) INFORMATION FOR SEQ ID NO:1612:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1612:
 GGGGGBGTTT CBTCTTGGCT 20

(2) INFORMATION FOR SEQ ID NO:1613:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1613:
GGGGBGTTTC BTCTTGGCT 19

(2) INFORMATION FOR SEQ ID NO:1614:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1614:
GGGBGTTTCB TCTTGGCT 18

(2) INFORMATION FOR SEQ ID NO:1615:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1615:
GGBGTTTCBT CTTGGCT 17

(2) INFORMATION FOR SEQ ID NO:1616:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1616:
GBGTTTCBTC TTGGCT 16

(2) INFORMATION FOR SEQ ID NO:1617:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1617:
BGTTTCBTCT TGGCT 15

(2) INFORMATION FOR SEQ ID NO:1618:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1618:
GTTTCBTCTT GGCT 14

(2) INFORMATION FOR SEQ ID NO:1619:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1619:
TTTCBTCTTG GCT 13

(2) INFORMATION FOR SEQ ID NO:1620:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1620:
TTCBTCTTGG CT 12

(2) INFORMATION FOR SEQ ID NO:1621:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1621:
GGGGGBGTTT CBTCTTGGC 19

(2) INFORMATION FOR SEQ ID NO:1622:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1622:
GGGGBGTTTC BTCTTGGC 18

(2) INFORMATION FOR SEQ ID NO:1623:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1623:
GGGBGTTTCB TCTTGGC 17

(2) INFORMATION FOR SEQ ID NO:1624:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1624:
GGBGTTTCBT CTTGGC 16

(2) INFORMATION FOR SEQ ID NO:1625:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1625:
GBGTTTCBTC TTGGC 15

(2) INFORMATION FOR SEQ ID NO:1626:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1626:
BGTTTCBTCT TGGC 14

(2) INFORMATION FOR SEQ ID NO:1627:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1627:
GTTTCBTCTT GGC 13

(2) INFORMATION FOR SEQ ID NO:1628:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1628:
TTTCBTCTTG GC 12

(2) INFORMATION FOR SEQ ID NO:1629:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1629:
GGGGGBGTTT CBTCTTGG 18

(2) INFORMATION FOR SEQ ID NO:1630:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1630:
GGGGBGTTTC BTCTTGG 17

(2) INFORMATION FOR SEQ ID NO:1631:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1631:
GGGBGTTTCB TCTTGG 16

(2) INFORMATION FOR SEQ ID NO:1632:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1632:
GGBGTTTCBT CTTGG 15

(2) INFORMATION FOR SEQ ID NO:1633:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1633:
GBGTTTCBTC TTGG 14

(2) INFORMATION FOR SEQ ID NO:1634:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1634:
BGTTTCBTCT TGG 13

(2) INFORMATION FOR SEQ ID NO:1635:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1635:
GTTTCBTCTT GG 12

(2) INFORMATION FOR SEQ ID NO:1636:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1636:
GGGGGBGTTT CBTCTTG 17

(2) INFORMATION FOR SEQ ID NO:1637:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1637:
GGGGBGTTTC BTCTTG 16

(2) INFORMATION FOR SEQ ID NO:1638:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1638:
GGGBGTTTCB TCTTG 15

(2) INFORMATION FOR SEQ ID NO:1639:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1639:
GGBGTTTCBT CTTG 14

(2) INFORMATION FOR SEQ ID NO:1640:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1640:
GBGTTTCBTC TTG 13

(2) INFORMATION FOR SEQ ID NO:1641:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1641:
BGTTCBTCT TG 12

(2) INFORMATION FOR SEQ ID NO:1642:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1642:
GGGGGBGTTT CBTCTT 16

(2) INFORMATION FOR SEQ ID NO:1643:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1643:
 GGGGBGTTTC BTCTT 15

(2) INFORMATION FOR SEQ ID NO:1644:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1644:
 GGGBGTTTCB TCTT 14

(2) INFORMATION FOR SEQ ID NO:1645:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1645:
 GGGBGTTTCB TCTT 14

(2) INFORMATION FOR SEQ ID NO:1646:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1646:
 GGBGTTTCBT CTT 13

(2) INFORMATION FOR SEQ ID NO:1647:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1647:
 GBGTTTCBTC TT 12

(2) INFORMATION FOR SEQ ID NO:1648:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1648:
 GGGGGBGTTT CBTCT 15

(2) INFORMATION FOR SEQ ID NO:1649:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1649:
 GGGGBGTTTC BTCT 14

(2) INFORMATION FOR SEQ ID NO:1650:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1650:
GGGBGTTTCB TCT 13

(2) INFORMATION FOR SEQ ID NO:1651:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1651:
GGBGTTTCBT CT 12

(2) INFORMATION FOR SEQ ID NO:1652:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1652:
GGGGGBGTTT CBTC 14

(2) INFORMATION FOR SEQ ID NO:1653:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1653:
GGGGGBGTTTC BTC 13

(2) INFORMATION FOR SEQ ID NO:1654:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1654:
GGGBGTTTCB TC 12

(2) INFORMATION FOR SEQ ID NO:1655:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1655:
GGGGGBGTTT CBT 13

(2) INFORMATION FOR SEQ ID NO:1656:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1656:
GGGGGBGTTTC BT 12

(2) INFORMATION FOR SEQ ID NO:1657:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1657:
GGGGGBGTTT CB 12

(2) INFORMATION FOR SEQ ID NO:1658:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1658:
 TCTCCCCCTG TTCTCCCC 19

(2) INFORMATION FOR SEQ ID NO:1659:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1659:
 TCTCCTGCTC TGGTGCTCC TC 22

(2) INFORMATION FOR SEQ ID NO:1660:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1660:
 TTCCCTCCCT CCCCTGCC 18

(2) INFORMATION FOR SEQ ID NO:1661:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1661:
 GTGTTGTCTG TGGGTGTCC 19

(2) INFORMATION FOR SEQ ID NO:1662:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1662:
 GTTTCGCTCT TGTGCCC 18

(2) INFORMATION FOR SEQ ID NO:1663:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1663:
 TGGGCCCTTC CCTGCTGG 18

(2) INFORMATION FOR SEQ ID NO:1664:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1664:
 GCTGGTCCTC TGCTGTCCTT GCTG 24

(2) INFORMATION FOR SEQ ID NO:1665:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1665:

GTGCTCBTGG TGCCTTTCC

20

(2) INFORMATION FOR SEQ ID NO:1666:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1666:

GCCCTGGGGC CCCCTGTCT TCTTGGGG

28

(2) INFORMATION FOR SEQ ID NO:1667:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1667:

CCTCTCCCT CTGGGGGCCG

20

(2) INFORMATION FOR SEQ ID NO:1668:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1668:

TCTCTCTCCC TCTCTGCGT CTCTC

25

(2) INFORMATION FOR SEQ ID NO:1669:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1669:

TCTTTCTCTC TCTCTCTCC CC

22

(2) INFORMATION FOR SEQ ID NO:1670:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1670:

TTTCCCGCTC TTTCTGTCTC

20

(2) INFORMATION FOR SEQ ID NO:1671:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1671:

GGTGTCTGGT TTTCTCTCTC C

21

(2) INFORMATION FOR SEQ ID NO:1672:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1672:

GCTGGCTGCC TGTCTGGCCT GCGCTCTT

28

(2) INFORMATION FOR SEQ ID NO:1673:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1673: 18
 GGCCCTGTGCT GTTCCTCC

(2) INFORMATION FOR SEQ ID NO:1674:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1674: 26
 TCCGGTTCCT GTCCTCTCTG TCTGTC

(2) INFORMATION FOR SEQ ID NO:1675:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1675: 25
 GCCCCCTCTG GGGTCTCCCT CTGGC

(2) INFORMATION FOR SEQ ID NO:1676:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1676: 18
 GTGGTGGTCT TGTGCTT

(2) INFORMATION FOR SEQ ID NO:1677:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1677: 19
 GGGCTGGGCT CCGTGTCTC

(2) INFORMATION FOR SEQ ID NO:1678:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1678: 17
 CBGTGCTCBT GGTGTCC

(2) INFORMATION FOR SEQ ID NO:1679:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1679: 21
 GCTGBGGGBG CGTCTGCTGG C

(2) INFORMATION FOR SEQ ID NO:1680:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 329 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1680: 60
 TGCTTTTCTT TTCTGGGCCT CTGTGGTCTG TTTTCTCTG GCCCTGCTGG GCGCTCTCC

GCCGCCCCGCC TGGCTCCCGG BGCCCBTGBT GGGCBTGCCG TGGTTCTTGC CCTCCTTTGG 120
 CTGCCGTGCC CGTCCCCCGG CCTCCTGGCG GGTGGCCGTT GGGCCCGTGT TCCCCTGGGG 180
 CCTGGGGCTC CCTTCTCTCG CCCTTCTTGC TGGGCCTCTG CTGCTGCTGG TGCTGTGGCC 240
 CCCGTACACC GAGGAGCCCA TGATGGGCAT GCCACAGACG ACAGGCGTBC BCCGBGGGBC 300
 CCBTGBTGGG CBTGCCBCBG BCGBCBGGC 329

(2) INFORMATION FOR SEQ ID NO:1681:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1681:

CTGGGCCTC

9

(2) INFORMATION FOR SEQ ID NO:1682:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1682:

GCCGCCCCGCC TG

12

(2) INFORMATION FOR SEQ ID NO:1683:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1683:

GCCCCGCTCCC CGGC

14

(2) INFORMATION FOR SEQ ID NO:1684:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1684:

CBCCGBGGBG CCC

13

(2) INFORMATION FOR SEQ ID NO:1685:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 304 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1685:

GGCGCCGTGC CGCGTCTTGG TGGCGGCGGG TTCGCGCCCG CGCGGGGCCC CTCCGGTCCG 60
 TTCGCGCCCG CGCGGGGCCC CTCCGGTCCC GGTGCGGGC CCCCCGCGGC CGCCTCGGGG 120
 CTGGGGCGCT GGTGGCCGGG CCGCGCCTCC GCCTGCCGCT TCTGGCTGGG CCCCCGGGCGC 180
 CCCCTCCCCT CTGCTCGGG TCCCGGTGAC AGCGCGTCCT GTGTCTCCAG CAGCATGGCC 240
 GGGCCAGCTG GGCCCCBCBG CGCGTCTGT GTCTCCBCB GCBTGGCCGG GCCBGCTGGG 300
 CCCC 304

(2) INFORMATION FOR SEQ ID NO:1686:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1686:

GCGCGTCTCTG

10

(2) INFORMATION FOR SEQ ID NO:1687:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1687:
 GCTGGGCCCC GG 12

(2) INFORMATION FOR SEQ ID NO:1688:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1688:
 CGGGTCGGGG CCCCCC 16

(2) INFORMATION FOR SEQ ID NO:1689:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1689:
 CGCGCCCGCG 10

(2) INFORMATION FOR SEQ ID NO:1690:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 213 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1690:
 ACAGAGCAGT GCTGTTGTTG GGCATCTTGC CTTCCCAGGG BCBGBGCBTG CTGTTGTTGG 60
 GCBTCTTGCC TTCCCBGGGC CCTTTCTTGG TGGGGTGGTG CTGTTGTTGG GCTTTCTTCT 120
 GTTCCCBGBG BGCBBGTGCTG TTGTTGGGCB TCTTGCCTTC CCBGGGCCCT TTTCTGGTGG 180
 GGTGGTGCTG TTGTTGGGCT TTCTTCTGTT CCC 213

(2) INFORMATION FOR SEQ ID NO:1691:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1691:
 GBGCBTGC 8

(2) INFORMATION FOR SEQ ID NO:1692:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1692:
 TTGTTGGGC 9

(2) INFORMATION FOR SEQ ID NO:1693:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1693:
 TGCCTTCCCB GGG 13

(2) INFORMATION FOR SEQ ID NO:1694:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 133 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1694:
 TTCCCCCTGG GTCTTCCCTC CTGCTCTTTT TTCATTGCT CTCCTATTAC TTTCTGTGTC 60
 CATTTTTTCA TTAACCGAGC TGTBTTTGCT CTCCTBTTBC TTTCTGTGTC CBTTTTTTCB 120
 TTBBCCGBGC TGT 133

(2) INFORMATION FOR SEQ ID NO:1695:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1695:
 CCCCTGGG 8

(2) INFORMATION FOR SEQ ID NO:1696:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1696:
 GCTCTCCTBT T 11

(2) INFORMATION FOR SEQ ID NO:1697:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1697:
 CBTTBBCCGB GCTG 14

(2) INFORMATION FOR SEQ ID NO:1698:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 299 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1698:
 GCCTGTGTCT GTCCTCCTGC TTCGTTCTCTC TCGTTCCTGC TTGGTGCCCT TGCCGGTCCT 60
 GCTCCTCCGG GCTGTGGGTC GTGGCCCTGG CTCGGGCTGG TGGGCTCCCC TGGCCTTCGC 120
 TGGCTGGCGG CGTGCGGGTC TTGCTCTGGG CCTGGCTGTG GCCGTGGTTG GGGGTCTTCG 180
 CTGCCTCCGT TTGGGTGGCT CTCTGAATAT TGACCTTCCT CCATGGCGGT CCTGCTTGGA 240
 TTCTCCCGAT CTCTGBBTBT TGBCTTCCT CCBTGGCGGT CCTGCTTGGT TTCTCCCGB 299

(2) INFORMATION FOR SEQ ID NO:1699:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1699:
 GTCCTCCT 8

(2) INFORMATION FOR SEQ ID NO:1700:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1700:
 TGTGTCTGTC CTCC 14

(2) INFORMATION FOR SEQ ID NO:1701:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid

$$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx$$

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      (2) INFORMATION FOR SEQ ID NO:1702:
      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 11 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear
      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1702:
CGTGGTTGGG G

```

(2) INFORMATION FOR SEQ ID NO:1703:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1703:
 TCTCTGBBTB TTGBCC

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      (2) INFORMATION FOR SEQ ID NO:1704:
      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 378 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear
      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1704:
GCCTTTCCTG GTTCTCTTGT TGTTTTGGG GTTTGGCTTA CAGTAGAGTA GGGGATTCCA      60
TGGCAGGAGC CATCTTCTTC ATGGACCTCT TCAAGGAGAC CTTAGGTTTC TGAGGGGACTG      120
CTAACACGCC ATCTGGAGCB CBGTBGBGTB GGGGBTTCCB TGGCBGBGBC CBTCTTCTTC      180
BTGGBTCTCT TCBGGGBGBC CTTBGGTTTC CTBBBCGCC BTTCTGGBGC      240
TTGTTTTTGG GGTTCGCTT GCCTTTCCTG GTTCTCTTBC BGTBGBGTBG GGBBTTCCBT      300
GGCBGBGBCC BTCTTCTTCB TGGBCTCCTT CBBGGBGCC TTBGGTTTCT GBGGGBCTGC      360
TBBCBCGCCB TCTGGBGC

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(2) INFORMATION FOR SEQ ID NO:1705:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1705:
TGGBCTCC

(2) INFORMATION FOR SEQ ID NO:1706:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1706:
 CCBTCTGGB

(2) INFORMATION FOR SEQ ID NO:1707:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1707:
 CTGCTBBCBC G

(2) INFORMATION FOR SEQ ID NO:1708:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1708:
 GTTTTTGGGG TTG

14

(2) INFORMATION FOR SEQ ID NO:1709:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 279 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1709:
 GCCTGTGTCT GTCCTCCTGC TTCGTTCTC TCGTTCCTGC TTGGTGCCCT TGCCGGTCCT 60
 GCTCCTCCGG GCTGTGGGTC CTCGCCCTGG CTCCGGCTGG TGGGCTCCCC TGGCCTTCGC 120
 TGGCTGGCGG CGTGCCCCBG BCBGBGBCCC GGBCCGBCBG GCCGTGGTTG GGGGTCTTCG 180
 CTGCCTCCGT TTGGGTGGCG ATCTCTGAAT ATTGACCTTC CATGGCGGTC CTGCTTGGAG 240
 BTCTCTGBBT BTGBCCTTC CBTGGCGGTC CTGCTTGGG 279

(2) INFORMATION FOR SEQ ID NO:1710:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 291 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1710:
 GCCTGTGTCT GTCCTCCTGC TTCGTTCTC TCGTTCCTGC TTGGTGCCCT TGCCGGTCCT 60
 GCTCCTCCGG GCTGTGGGTC CTCGCCCTGG CTCCGGCTGG TGGGCTCCCC TGGCCTTCGC 120
 TGGCTGGCGG CGTGCCCCBG BCBGBGBCCC GGBCCGBCBG GCCGTGGTTG GGGGTCTTCG 180
 CTGCCTCCGT TTGGGTGGCG ATCTCTGAAT ATTGACCTTC CATGGCGGTC CTGCTTGGAG 240
 BTCTCTGBBT BTGBCCTTC CBTGGCGGTC CTGCTTGGG CGTTCCTCTC G 291

(2) INFORMATION FOR SEQ ID NO:1711:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1711:
 BGBBCGBGBC

10

(2) INFORMATION FOR SEQ ID NO:1712:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1712:
 TGBBTBTG

10

(2) INFORMATION FOR SEQ ID NO:1713:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 171 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1713:
 TCTCCCTTGG GCTCTGGCTC CTTCTCTCTC TCTCCCTCTC TCTCTGTGCG CTCCGCCCTG 60
 GCTGCTGGGG TGGTGGTGT TTTGTTCTTC CTTGTGCGC CCCCCTGCT TGTCTTCCTC 120
 GCTCTGTCCC TCTCTCTCTG TBCTCCTCBG GCTCCBTCBT CTCCCTTGGG C 171

(2) INFORMATION FOR SEQ ID NO:1714:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1714:
GGCTCTGGC 9

(2) INFORMATION FOR SEQ ID NO:1715:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1715:
CCCTTGG 7

(2) INFORMATION FOR SEQ ID NO:1716:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1716:
TTGTCTCTC C 11

(2) INFORMATION FOR SEQ ID NO:1717:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 123 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1717:
CTTGCTCCTG GGGGCCTCCT GGTCCCTCCG GGTGTTCCCG GCGGGCCTGG CCTGGGGCBG 60
GGGCCGCGTB GCGCGGGCTC GCCBGGBCGG GCBGCGCCBG CBGCBGCBGB TTCBGCBTCC 120
TGG 123

(2) INFORMATION FOR SEQ ID NO:1718:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1718:
GCTCCTGGGG GCCT 14

(2) INFORMATION FOR SEQ ID NO:1719:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1719:
CGTBGGCGC 9

(2) INFORMATION FOR SEQ ID NO:1720:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1720:
TGGCCTGGGG 10

(2) INFORMATION FOR SEQ ID NO:1721:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 132 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1721:
CTTGCTCCTG GGGGCCTCCT GGTCCCTCTG GCTGTTCCCG GCCCTGGBC T GGGGCBGGGG 60
CCGCGTBGGC GCGGCTCGCC BGGBCGGCB GCGCCBGCBG CBGCBGGCTC BGCBTCCTGG 120

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1729:
 GGGCGCGGGC GBGCBTCGCT TTGGGCTTTT CTCCTTTGGT TTGBGCGCCB GGBCCGCGCB 60
 CBGCBGCBGG GCGCGGGCGB GCBTCGCBGC GCGGGGCBGG G 101

(2) INFORMATION FOR SEQ ID NO:1730:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1730:
 GGCBGGG 7

(2) INFORMATION FOR SEQ ID NO:1731:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1731:
 TCCTTTGGTT 10

(2) INFORMATION FOR SEQ ID NO:1732:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 81 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1732:
 CCTCCTTCCT GGTCTGTCTG CCBGCBBBT TTGGGBBGTG BBCBGTTTTG GBBCCBTGTT 60
 TCCCBGTCTC TGBGCTGTGG C 81

(2) INFORMATION FOR SEQ ID NO:1733:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1733:
 TTCTCCTTTG GTT 13

(2) INFORMATION FOR SEQ ID NO:1734:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1734:
 TTCTCCTTT GGTT 14

(2) INFORMATION FOR SEQ ID NO:1735:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 156 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1735:
 GCCCTGCTGC TCTTTCTGCT TCCCTTGGTG GGTGGGCCG CTGGTTGTTT TGGGGTTCTT 60
 GCTGCCCTT CTGTCCCTGT TTGCTGGTGT CTGCGCCCCC BBCBGBBBB GCBGCBBBT 120
 TTGGGBBGTG BBCBGTTTTG GBBCCBTGTT TCCTGT 156

(2) INFORMATION FOR SEQ ID NO:1736:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1736:
TTCCTGT 7

(2) INFORMATION FOR SEQ ID NO:1737:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1737:
CTCTTTCTGC T 11

(2) INFORMATION FOR SEQ ID NO:1738:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1738:
CCCCTTCTGT CCC 13

(2) INFORMATION FOR SEQ ID NO:1739:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 272 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1739:
GCGCTCGGCC TGGTCCCGGG GGTCTCCTCT TGTGTTGCT TGC GCCTCCT GCTGGGGGTC 60
CCTCTGTTCT TGT TTTGGGG GCGGGCCCCG CCGTTGTCTT GGT TGGGGG TTTCCGTTGG 120
GGTTCTCCTG GCCCGGCCCT TGCCCGGCCG TGGTCCCGGC TTCGTTCCTG TCTCCGTCTC 180
GGCTCTTCTG GGGCCTTGCG CTGTCTTTGG TGGCBCCGTC CBGTGBTGGT GCGGTBCTTG 240
TCGCTGCBGC GCTCGGCCTG GTCCCGGBGB GC 272

(2) INFORMATION FOR SEQ ID NO:1740:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1740:
TCGGCCTGGT CCCGG 15

(2) INFORMATION FOR SEQ ID NO:1741:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1741:
TGGGGGTTTC CGTTG 15

(2) INFORMATION FOR SEQ ID NO:1742:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1742:
TGGTCCCGGB GBGC 14

(2) INFORMATION FOR SEQ ID NO:1743:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 360 base pairs

(2) INFORMATION FOR SEQ ID NO:1744:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1744:
GGGGGCTGCT GGG

(2) INFORMATION FOR SEQ ID NO:1745:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1745:
 TGTCTCCGG CGTCCC

(2) INFORMATION FOR SEQ ID NO:1746:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1746:
GCCBTBGCGB GGCTGBG

(2) INFORMATION FOR SEQ ID NO:1747:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1747:
CTCTGGGGTG GCCTTC

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(2) INFORMATION FOR SEQ ID NO:1748:
(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 242 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1748:
CCTCTTTTCT GTTTTTCCCC TCTGCCTTTG TTTGGGTTCTG CTTCCTTTCT GCTTCTTCCC      60
TGTGTCTCCT GTCTCCGCTT TTTTCTTCGT CTTTGTGTGT TTCTCTTCCT TGCTGBGCBB      120
GBTBTCTBGB TTTCTGGGGTG GTCTCGBTTT TBBBBGCTTG BGBBGCTGCB BCBTBTBTCC      180
BBBGBTBTBT TGBGGCTCCB BGGBTCBCGB CCBTCTTCCC BGGCBTTTTB BGTTGCTGTC      240
GT

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(2) INFORMATION FOR SEQ ID NO:1749:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1749:
CTGTCGT

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(2) INFORMATION FOR SEQ ID NO:1750:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1750:
TGCTTCTTCC 10

(2) INFORMATION FOR SEQ ID NO:1751:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 249 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1751:
BBGTGBGBGC TGBGBGBBGC TGTGBBGCBB TCBTGBCTTC BBGBGTTCTT TTCBCCCGTT 60
CTTGGCTTCT TCTGTCCGTT GGCTTCTCGT TGTCCCTGTG GGCTTCTCGT TGTCCCCCCT 120
TCGGGGGGCTG GTGGGGGCCGT CCTTGCCTGC TGGGTTCTTG GCTTCTTCTG TCCGTTGGCT 180
TCTCGTTGTC CCTGTGGGCT TCTCGTTGTC CCCCCTTCGG GGGCTGGTGG GGCCGTCCTT 240
GCCTGCTGG 249

(2) INFORMATION FOR SEQ ID NO:1752:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1752:
CCTTGCTGCTGC TGG 13

(2) INFORMATION FOR SEQ ID NO:1753:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1753:
GTTGTCCC 8

(2) INFORMATION FOR SEQ ID NO:1754:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1754:
TTTTCTCTTT CGCTTCTTT TCGTCTCCTG TTCCTCCTTT TTGCTGTTT TTTCTCCTTC 60
TTCTCTCCTT TCTTTT 77

(2) INFORMATION FOR SEQ ID NO:1755:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1755:
TCCTTTCTTT TC 12

(2) INFORMATION FOR SEQ ID NO:1756:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1756:
CTCCTTTT 8

(2) INFORMATION FOR SEQ ID NO:1757:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1757:
 TTTTCTCTTT CGCTTTCTTT TCGTCTCCTG TTCCTCCTTT TTTGCTGTTT TTTCTCCTTC 60
 TTCTCTCCTT TCTTTTC 77

(2) INFORMATION FOR SEQ ID NO:1758:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1758:
 CCTTTCTTTT C 11

(2) INFORMATION FOR SEQ ID NO:1759:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1759:
 CTGTTCTCTC TTTT 14

(2) INFORMATION FOR SEQ ID NO:1760:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1760:
 CTCTGTCTTG TTCTGGTCCT TCGTGGGGCT CTGTGTCGCG TGGGTGCGGC CGTGGCCGGC 60
 GGBCCBGBG TGGBGBCBGG BGCBBGBCG GCBGGCGCT CBTGTTTGG TCGGCBGBBG 120
 GCBCTC 126

(2) INFORMATION FOR SEQ ID NO:1761:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1761:
 GGBGGCBCTC 10

(2) INFORMATION FOR SEQ ID NO:1762:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1762:
 GTGGGGCTCT G 11

(2) INFORMATION FOR SEQ ID NO:1763:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 648 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1763:
 TCTGGGGTGT CCTGGCCTTC GTGGTTCCTC TTCCTTCGTT TGCCGTCCGC GGGGGCCCCC 60
 GGGCCTGGCT GCGCTCCTGC CCCGCTCTT TCCCGGGCTC TTGCGCTGGG GGGTGCTCCC 120
 GTGTGTTTGC GCCCTCCTCC TGGTCGCGCT TGTGTTTGG GGGCCGGCTT TGCCCGCCTC 180

CCGGCGCCTG GCCCGGCCTT CCTGGGCTGC GTGCGCGTTC TGTTCCTTCTT CCTGGCTCTG 240
GGGTGTCCTG GCCTTCGTGG TTCCTCTTCC TTCGTTTGCC GTCCGCGGGG GCGCCCGGGC 300
CTGGCTGCGC TCCTGCCCCG CCTCTTTCCC GGGCTCTTGC GCTGGGGGGT GCTCCCGTGT 360
GTTTGCGCCC TCCTCCTGGT CGCGCTTGTC GTTTGGGGC CGGCTTTGCC CGCCTCCCG 420
CGCCTGGCCC GGCCTTCCTG GGCTGCGTGC GCGTTCTGTT CTTCTTCCTG GCGCAGGAGA 480
CAGGGCAGGG CGATCAGGAG CAGCGTGAGC CAAAGGAGGA CCATCGGGAA CGCAGCTCCG 540
GAACGCAGGA CAGAGGTGCC GCBGGBGBCB GGGCBGGGCG BTCBGGBGBCB GCGTGBGCCB 600
BBGGBGBGCC BTCGGGBBCG CBGCTCCGB BCGCBGGBCB GBGGTGCC 648

(2) INFORMATION FOR SEQ ID NO:1764:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1764:

GBGGTGCC

8

(2) INFORMATION FOR SEQ ID NO:1765:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1765:

GCCCCGC

7

(2) INFORMATION FOR SEQ ID NO:1766:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 88 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1766:

CTCTGGTTGG CTTCTTCGCG CGGCBCBTGC TBGCBGGBBG BBGBGCGGGG GBBGCBGTTG 60
GGBGGTGBGB CCCBTTBBTB GGTGTCGB 88

60

88

(2) INFORMATION FOR SEQ ID NO:1767:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1767:

GCCGGCBCB

9

(2) INFORMATION FOR SEQ ID NO:1768:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1768:

TTCCTTC

7

(2) INFORMATION FOR SEQ ID NO:1769:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 562 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1769:

TCTGCCCTGT CCGCCGGCTC TTCGGTGGCT CGGCCCGCT CTTGTCTTG CCGCGGGTTG 60
GTTCTGGGC CTGTTCTTG CGGGCGTTTC GGTCTGCTGG CTGGTCTGG CCGCGGGTGC 120
GGCGGGTGGC TTGCTGTTCT GCCTGGGCTC TCCCCTCTCC TCCTTTTCTC CCTTCCTCTG 180
TCTTGCCCTC TTCCTCTGGG TCCTCTTGGC CTGGGCGCTC TCCCCCTCGG GCGGCTGCGG 240
GCGCTCGTGC TGCTTGCTCC GCTCCCTGGG GGTGCTCCTT CCCTTTCCCC GCTCGTGGGG 300
TTTGCGGGGC TGGGCTGCCC TGGGGGGTCT GGGCCTTTTG GGGTCGGCTG GCTGCTGCTT 360

60

120

180

240

300

360

CGGGCCGCT GGGCTTCCCT GTGCCCCTTT CCTCTGCTGG GTCCCCCTCC CGTTCCAAGC 420
TGCACCGCAC AGACCGGCGC TACAGGACAG AGCCAGGCAA GCACCCATGG GGATCCAGGC 480
CCAGCTGTTC CBBGCTGCBC CGCBCBGBCC GGCCTBCBG GBCBGBGCCB GGCBBGCBCC 540
CBTGGGGBTC CBGGCCCBGC TG 562

(2) INFORMATION FOR SEQ ID NO:1770:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1770:
TCTGCGC 7

(2) INFORMATION FOR SEQ ID NO:1771:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1771:
CCTGCTCCTG GGG 13

(2) INFORMATION FOR SEQ ID NO:1772:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 257 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1772:
TCCCTGTTTC CCCCTTTTCG TTCTGCGTTT GCCTTTGGCG TTTTGTGTTT GTTTTCTCTC 60
TCCGTCTTTC TTCTCCCTG TGGGBBTTTC TGTGGGGBTG GCBTBCBCGT BGGCBGCTCC 120
BBGBGCTBGC BBBCTCBBT GCBGBGCBT CCTCBTGGCT CTGBBCCGGT GGAATTCTCT 180
GTGGGGBTGG CATACACGTA GGCAGCTCCA AGAGCTAGCA AACTCAAATG CAGAAGCATC 240
CTCATGGCTC TGAAACG 257

(2) INFORMATION FOR SEQ ID NO:1773:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1773:
GCCCCGGG 8

(2) INFORMATION FOR SEQ ID NO:1774:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1774:
GGGTTTCT 8

(2) INFORMATION FOR SEQ ID NO:1775:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1775:
GTGGGGBTGG C 11

(2) INFORMATION FOR SEQ ID NO:1776:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1776: 12
 CCBGBGCTB GC

(2) INFORMATION FOR SEQ ID NO:1777:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 89 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1777: 60
 GTGGGAATTT CTGTGGGGT GGCATACACG TAGGCAGCTC CAAGAGCTAG CAAACTCAA 89
 TGCAGAAGCA TCCTCATGGC TCTGAAACG

(2) INFORMATION FOR SEQ ID NO:1778:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 249 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1778: 60
 CTCAGTGGCC CCCAAAGGA TGAGTAATAC ATGCGCCACG ATGATCATAT CCTTTTACT 120
 ATGAGGCCGT GTCGTGCTG TCTTTCCTTT GCTCTTGGTG TGTCTTTGCT GTGCCCTGCC 180
 TCTCTGCCC GTCTGTCTG GTCTTTCCTT TGCTCTGGT GTGTCTTTC GTGTGCCCTGC 240
 CTCTCTGCC GTGTCTGTC GTCTTTCCT TTGCTCTTG TGTGTCTTGT CTGTGCCCTG 249
 CCTCTCTGC

(2) INFORMATION FOR SEQ ID NO:1779:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1779: 7
 CCGTGTC

(2) INFORMATION FOR SEQ ID NO:1780:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1780: 8
 GCCCTGCC

(2) INFORMATION FOR SEQ ID NO:1781:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1781: 60
 CTCBGTGGCC CCCBBBBGB TGBGTBTBC BTGCGCCBG BTGTCBTBT CCTTTTBTCT 66
 BTGBGG

(2) INFORMATION FOR SEQ ID NO:1782:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 869 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1782: 60
 GGGGGTGGCT TCCTGCCGCG TCTCTGGGCC GTCCCGTCCC TCGGCCCCGC GCCGCGCTCG 120
 GCTCCTCTCC CTCTGGCCCG GCTCGGGGCG GGGCGGGGCG GTGGGCGGGC GGGCTGCCCC 180
 TGC GCGCGGC GCTGGCCCT GCTGCCGTC GGCTGCGCGC TGCTGGCTGC CCTGCTGGCC 240
 GCGCCGGGCG CTGTCCGCT CTGCGGGGCG TGTCTCCTGG CTGTCTTCC GGGCTCTTCTG 300
 CTGGGGTGGG GCTGGGCGGC CGGCCCGGTG CTGGGGCTCC TCGGGGGGGG GGGCTCTTCC 360
 GGGCTGTCTC CCTCCGGGG GGGGGTTTCT GGCCGTGGGG GTCTTGCCTG GCCTCCGGGC

TCCTGCTTGT CTTGCCTTCC TTCTCTGGTC GGTGTGGCT CGGGGCTCCG TGGGTCCCTG 420
 GCGCCCGTTT GTGTTTTGTC TTTTCCCTG GCGTCCCTGT GCCCTCTCC TCTCCTTCCT 480
 CTGCTTCTCG CTCTCCTTTG TGGGGCCCTC CCTGCTGCTC TTGGTTTTGG GCTTTTTTTC 540
 TCTTCTCCTT TTTTCGTGCG TGGGCTCCG CACGCCTCTT GCCACCTCCT GCGCAGGGCA 600
 GCGCCTTGGG GCCAGCGCCG CTCCCGGCGC GGCCAGCAGG GCAGCCAGCA GCGCGCAGCC 660
 GACGGCCAGC ATGCTTCCTC CTCGGCTACC ACTCCATGGT CCCGAGAGG CGGACAGGCG 720
 CBCGCCTCTT GCCBCCTCCT GCGCBGGGCB GCGCCTTGGG GCCBGCAGCG CTCCCGGCGC 780
 GGCCBGCBBG GCBGCCBGC BCGGCCBGC BTGCTTCCTC CTCGGCTBCC 840
 BCTCCBTGGT CCCGCBGBGG CGBBCBGGC 869

(2) INFORMATION FOR SEQ ID NO:1783:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1783:

GCBGCCBGC GCG

13

(2) INFORMATION FOR SEQ ID NO:1784:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1784:

GCBGCCBGC GGCC

14

(2) INFORMATION FOR SEQ ID NO:1785:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 869 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1785:

GGGGGTGGCT TCCTGCCGCG TCTCTGGGCC GTCCCGTCCC TCGGCCCCGC GCCGCGCTCG 60
 GCTCCTCTCC CTCTGGCCCG GCTCGGGGCG GGGCGGGGCG GTGGGCGGGC GGCGCTGCCC 120
 TGCGCGCGGC GCTGGCCCTT GCTGGCCGTC GGCTGCGCGC TGCTGGCTGC CCTGCTGGCC 180
 GCGCCGGGGC CTGTCCGCTT CTGCGGGCGC TGTCTCCTGG CTTGTCTTCC GGCTCTTCTG 240
 CTGGGGTGGG GCTGGGCGGC CGGCCCGGTG CTGGGGCTCC TCGGGGGGGG GGGCTCTTCC 300
 GGGCTGTCTC CCTCCGGGGC GGGGGTTTCT GGCCGTGGGG GTCTTGCTCG GCCTCCGGGC 360
 TCCTGCTTGT CTTGCCTTCC TTCTCTGGTC GGTGTGGCT CGGGGCTCCG TGGGTCCCTG 420
 GCGCCCGTTT GTGTTTTGTC TTTTCCCTG GCGTCCCTGT GCCCTCTCC TCTCCTTCCT 480
 CTGCTTCTCG CTCTCCTTTG TGGGGCCCTC CCTGCTGCTC TTGGTTTTGG GCTTTTTTTC 540
 TCTTCTCTCT TTTTCGTGCG TGGGCTCCG CACGCCTCTT GCCACCTCCT GCGCAGGGCA 600
 GCGCCTTGGG GCCAGCGCCG CTCCCGGCGC GGCCAGCAGG GCAGCCAGCA GCGCGCAGCC 660
 GACGGCCAGC ATGCTTCCTC CTCGGCTACC ACTCCATGGT CCCGAGAGG CGGACAGGCG 720
 CBCGCCTCTT GCCBCCTCCT GCGCBGGGCB GCGCCTTGGG GCCBGCAGCG CTCCCGGCGC 780
 GGCCBGCBBG GCBGCCBGC BCGGCCBGC BTGCTTCCTC CTCGGCTBCC 840
 BCTCCBTGGT CCCGCBGBGG CGBBCBGGC 869

(2) INFORMATION FOR SEQ ID NO:1786:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1786:

GGGGCBGG

8

(2) INFORMATION FOR SEQ ID NO:1787:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1787:

GBBGGCBGC GGC

13

(2) INFORMATION FOR SEQ ID NO:1788:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1788:
 CCBGGGCBG CCCC 14

(2) INFORMATION FOR SEQ ID NO:1789:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1789:
 BGGGBGBGG CBBC 14

(2) INFORMATION FOR SEQ ID NO:1790:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 128 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1790:
 CTCCTGGGGG TBCTGGGGCB GGGBGGCBG CBGGCBBCBC CBGGBGCBCG CCCBGGGBGB 60
 BGGCBBCTGG BCCGBBGGCG CTTGTGGGBG BGGBTTCBT BGCTGGGCTC CTGGBGGGGB 120
 GBTBGBGC 128

(2) INFORMATION FOR SEQ ID NO:1791:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 244 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1791:
 GGGGTGGBBB GGTTCGGBGT BTGTCTTTBT GCBCTGBCBT CTBBGTTCTT TBGCBCTCCT 60
 TGGCBBBCT GCBCTTCBC BCBGBGCTGC BBBBBTCBG BGGCTGCCB BGBGBGCCBC 120
 GGCCBGCTTG GBGTCBTGT TTBCBCBCBG TGBGTGGTT CCTTCCGGGC TTGTGTGCTC 180
 TGCTGTCTCT TGGTTCCTTC CGGTGGTTTC TTCCTGGCTC TTGTCCTTC TCTTGGCCCT 240
 TGGC 244

(2) INFORMATION FOR SEQ ID NO:1792:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1792:
 GGBGTBTG 8

(2) INFORMATION FOR SEQ ID NO:1793:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1793:
 GCBCTGBCBT CT 12

(2) INFORMATION FOR SEQ ID NO:1794:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1794:

CCGGTGG

7

(2) INFORMATION FOR SEQ ID NO:1795:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1795:

GGCCCTTGGC

10

(2) INFORMATION FOR SEQ ID NO:1796:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 87 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1796:

GGGGTGGBBB GGTTTGGBT BTGTCTTBT GCBCTGBCBT CTBBGTTCTT TBGCBCTCCT
TGGCBBBCT GCBCTTCBC BCBGBC

60

87

(2) INFORMATION FOR SEQ ID NO:1797:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 489 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1797:

GGGCTCCCGC CGCGBGBGGT TBTGGGCTCC CBGGBCCBCC CGCBCCGCGC GGBCGTTTBC
BTTCGCCBCG CBGTGCGCGG CCGBCBTGBC GBBGTTGGGC GCBBTCBGGG TGGCGCCGCB
GBBGTGGCCT CCGCGCBGCT GCBGGGBCBC CBTGBBGGGC CBCGCGTGGG CCCGCGCTCG
CCGGCCCCC BCBBTCTCCG BGGCCBGC GC GTGCCCCC BGCBCBBGG CCGGCBGGBC
BCBGGCGBGG BGCBCGCGB GTCGGCGGCC GBGGTCTBTG GTGGGCTGG GGCTCCGGG
TCTCTGCCCC TCCGTGCTGG TGGGGCTGG GCTCCGGGG CTCTGCCCT CCGTGCCGCG
TGGGGCCGCG CTCGCCGCC CCCCCCTGCC GGGTGGGCTC CCGCCGCGCG CCGGCCTGCC
GGCCCCCTCGT GGGTCTGCT GGCCGGGTCC GGGTCCCGG GGTGGGGCGC GBGTCGGCGG
CCBGGGGTC

60

120

180

240

300

360

420

480

489

(2) INFORMATION FOR SEQ ID NO:1798:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1798:

GGTGGGGC

8

(2) INFORMATION FOR SEQ ID NO:1799:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1799:

GGGGCCG

7

(2) INFORMATION FOR SEQ ID NO:1800:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1800:

GGCCGGGTCC GGG

13

(2) INFORMATION FOR SEQ ID NO:1801:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 317 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1801:

GGGCTCCCGC	CGCGBGBGGT	TBTGGGCTCC	CBGGBCCBCC	CGCBCCGCGC	GGBCGTTTBC	60
BTTCGCCBCG	CBGTGCGCGG	CCGBCBTGBC	GBBGTGGGC	GCBBTCBGGG	TGGCGCCGCB	120
GBBGTGGCCT	CCGCGCBGCT	GCBGGGBCBC	CBTGBBGGGC	CBCGCGTGGG	GCCGCGCTCG	180
CCGGCCCCCC	BCBBTCTCCG	BGGCCBGC GC	GGTGCCCCC	BGCBGCBBGG	CCGGCBGGGC	240
BCBGGCGBGG	BGBCBCGCB	GTCGGCGGCC	GBGGGTCTBTG	GTGGGGCTTG	GGCTCCGGGG	300
TCTCTGCCCC	TCCGTGC					317

(2) INFORMATION FOR SEQ ID NO:1802:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 308 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: Genomic DNA
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1802:

CGGGBGTGGG	GGTCCTGGBC	GGCBCTGBBG	GCBTCCBGGG	CTCCCTCCB	GTCCTTCTTG	60
TCCGCTGCCB	GCBCCCCCTC	BTTCBGBGG	CTGBTGGCCT	CCBCCBGGGB	CBTGBTTBGG	120
TBGBBBCTBG	GBGGCCGGCC	TCCBCCBGGG	BCBTGGTCCT	TCTTGTCGCG	TGCCTCTCTG	180
GGGTTTTTCG	TCTGGGTGGG	CTTTCCTCCT	GGGGCTGCTG	CTGGGCTCTT	CTTTTGTGTT	240
CTGGCCTGGT	GCTCTCTCGT	GCCCTTTCCC	TTGGGTGTCT	TGTTTTTGTG	GCCTCCBCCB	300
GGGBCBTG						308

(2) INFORMATION FOR SEQ ID NO:1803:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1803:

CGGGBGTGGG	GG	12
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(2) INFORMATION FOR SEQ ID NO:1804:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1804:

GCCBGCBCCC	C	11
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(2) INFORMATION FOR SEQ ID NO:1805:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1805:

CCBCCBG		7
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(2) INFORMATION FOR SEQ ID NO:1806:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 136 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1806:

CGGGBGTGGG	GGTCCTGGBC	GGCBCTGBBG	GCBTCCBGGG	CTCCCTTCB	GTCCTTCTTG	60
TCCGCTGCCB	GCBCCCCCTC	BTTCBGBGG	CTGBTGGCCT	CCBCCBGGGB	CBTGBTTBGG	120
TBGBBBCTBG	GBGGCC					136

(2) INFORMATION FOR SEQ ID NO:1807:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 233 base pairs

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      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear
      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1807:
CCCTCCBCBT CTGCTCTGBC CTGCTGGBCT CTGGBTCTGB BGBTBCGCCB TGTBGGGGCG      60
GGBGTTGGGGC CTGCTCTCCC GGCCTCCGBT GBTCTCCCTT GCCTCBGCCB CGBTGGGTBG      120
GBGBBBGGCC BGCBGGBGCB GGBGTGGCTG CBTCTTTTCT GGTGGGGCCT GCTCTCCCGG      180
CTTCCGTGTG TTGCTGGGTG TTTTCCCGTC TCTGGTCTGC CTTCGGGGGT CGT          233

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(2) INFORMATION FOR SEQ ID NO:1808:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1808:
GBGBTBBCGC C

(2) INFORMATION FOR SEQ ID NO:1809:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1809:

CBGCCCBG

(2) INFORMATION FOR SEQ ID NO:1810:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1810:
 TCCCGTCTCT GG

12

(2) INFORMATION FOR SEQ ID NO:1811:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 150 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1811:

CCCTCCBCBT	CTGCTCTGBC	CTGCTGGBC	CTGGBTCTGB	BGBTBCGCCB	TGTBGGGGCG	60
GGBTGGGGG	CTGCTCTCCC	GGCTCCGBT	GBTCTCCCT	CGCTBCGCC	CBGTGGGTGB	120
GBGBBBGGCC	BGCBGBBGC	BGBTGGCTG				150

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(2) INFORMATION FOR SEQ ID NO:1812:
(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 222 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1812:
CCGGGGCTGC   BGCBBCTTCB   TCBGCTCTTG   CCTGGBGTGG   CTCBGCCTGG   GCCTGCBGGG   6
CCBCCBGBGB   BBTGGCBGCB   BGGBTGGCGB   GGGTCCTCBT   GGCTGGGGTC   BCBGBTCCTC   12
TBGCTBGGCB   GGGTGBCCBG   BGBGGCGGBG   TCCTCBTGGC   TGGGGGCGCTG   GGCCTGCBGG   18
GCCGCTCTTG   CTCGGBGTGG   CTCGCCCBGG   GTCTTCCCTG   GT

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(2) INFORMATION FOR SEQ ID NO:1813:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1813:
CCGGGGC

(2) INFORMATION FOR SEQ ID NO:1814:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1814:
 GGGCCTGCBG GGCC 14

(2) INFORMATION FOR SEQ ID NO:1815:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1815:
 GGCBGCBGGG 10

(2) INFORMATION FOR SEQ ID NO:1816:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 147 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1816:
 CCGGGGCTGC BGCBBCTCB TCBGCTCTTG CCTGGBTGG CTCBGCCTGG GCCTGCBGGG 60
 CCBCCBGGBG BBTGGCBGCB BGGBTGGCGB GGGTCCTCBT GGCTGGGGTC BCBGTCCTC 120
 TBGCTBGGCB GGGTGCCBG BGBGGG 147

(2) INFORMATION FOR SEQ ID NO:1817:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 180 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1817:
 CGCTGCBBTC TGCTCCGGGG CTGCBGCBBC CTCBTCBGCT CTTGCCTGGB GTGGCTCBGC 60
 CTGGGCCTGC BGGGCCBCCB GGBGBBTGGC BGCBBGGBTG GCBGGGTCC TCBTGGCTGG 120
 GGTCCCTGG BGGBGGGBG GCBGGGGGTC CTCBTGGCTG GGGTCCCTCT CTCCCGTCCT 180

(2) INFORMATION FOR SEQ ID NO:1818:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1818:
 GGCBGCBGGG 10

(2) INFORMATION FOR SEQ ID NO:1819:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1819:
 GGCTGGGG 8

(2) INFORMATION FOR SEQ ID NO:1820:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1820:
 GGGGTCBCC 9

(2) INFORMATION FOR SEQ ID NO:1821:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 145 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1821:
 CGCTGCBBTC TGCTCCGGGG CTGCBGCBBC CTCBTCBGCT CTTGCCTGGB GTGGCTCBGC 60
 CTGGGCCTGC BGGGCCBCCB GGBGBBTGGC BGCBBGGBTG GCGBGGGTCC TCBTGGCTGG 120
 GGTCBCCTGG BGGBGGGBGB GCBGG 145

(2) INFORMATION FOR SEQ ID NO:1822:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 374 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1822:
 GTCTTTGTTT CTGGGCTCGT GCCCBTCCC GGCTTCTCTC TGGTTCCGTC CTCTGTGGTG 60
 TTTGGCCCTG CTTCTTTTG CCTGTTGAGG GGGCAGCAGT TGGGCCCCAA AGGCCCTCTC 120
 GTTACCTTC TGGCACGGAG TTGCATCCCC ATAGTCAAAC TCTGTGGTCG TGTCATAGTC 180
 CTCTGTGGTG TTTGGAGTTT CCATCCCGGC TTCTCTCTGG TTCCAAGGGA GBGGGGGCBG 240
 CBGTTGGGCC CBBBGGGCC TCTCGTTTBC CTTCTGGCBC GGBGTTGCBT CCCCBTBGTC 300
 BBBCTCTGTG GTCGTGTCBT BGTCTCTGT GGTGTTTGGT GTTTCBTCC CGGCTTCTCT 360
 CTGGTTCCBB GGG 374

(2) INFORMATION FOR SEQ ID NO:1823:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1823:
 GGGCCCC 7

(2) INFORMATION FOR SEQ ID NO:1824:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1824:
 GGGGGCBGC 9

(2) INFORMATION FOR SEQ ID NO:1825:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1825:
 CCCGGCTTC 9

(2) INFORMATION FOR SEQ ID NO:1826:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1826:
 GGGCBGCGGG CBGTGGGCGG GCBBTGTBGG CBBBGCBGB GGGTGTGGTG TCCGBGGBBT 60
 BTGGGBGGC BGBTGCBGBB GCGCBGBGG CBGTGCBBT BGGBTGBCB GCGBGGCGTG 120
 CCGCGGBGC CTTCTGTGTT CCTGTGGBB GGCTGTGGB GGGGGTGTGG TGTCGCTTG 180
 GCGGTTCTTT CGGGTGTTT TTCTCTGGT TGGCCTGCTG CTCGTCTGG TCGCTCCGCT 240
 CCCGGGTTCG TCTCGCTCTG TCGCCCTTC CTTCTTGTC GTGTTCTCTC CTTCTTGCC 300
 TCT 303

(2) INFORMATION FOR SEQ ID NO:1827:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1827: 8
 GGGTTGGC

(2) INFORMATION FOR SEQ ID NO:1828:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1828: 8
 CGGGGCBG

(2) INFORMATION FOR SEQ ID NO:1829:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1829: 10
 CCCGGGTTCG

(2) INFORMATION FOR SEQ ID NO:1830:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1830: 10
 GGGTGTGGTG

(2) INFORMATION FOR SEQ ID NO:1831:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 162 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1831:
 GGGCBCGGGG CBGTGGGCGG GCBGTGTGGG CBBBGCBCB GGGTGTGGTG TCCGBGGBBT 60
 BTGGGGGGGC BGBTGCBGGB GCGCBGBGGG CBGTBGCBBT GBGGBTGBCB GCGBGGCGTG 120
 CCGCGGBGBC CTTCBTGGTB CCTGTGGBGB GGCTGTCTGGG 162

(2) INFORMATION FOR SEQ ID NO:1832:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 213 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1832:
 GGTGCCCCGC GGGGTGTGCG CTTGGCGCTC CCGTGCTCGG TTCTCTGTCT CCCGGTCCCC 60
 CTTGCCTGGC GTCTCGGGCC TTCGTCTCTT TCCTCTCTT CCTCCGCTC CGTGGGGGCT 120
 GCTTGGTGGG GGCTGTGCC TCGGGGTCCC GGGGCTTCTG GCCCTTGCCG TTCATGGTGG 180
 CTAGGTGGGG CGTTCBTGGT GGCTBGGTGG GGC 213

(2) INFORMATION FOR SEQ ID NO:1833:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1833: 8
 GGTGGGGC

(2) INFORMATION FOR SEQ ID NO:1834:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1834: 11
 GCCCCGCGGG G

(2) INFORMATION FOR SEQ ID NO:1835:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1835: 15
 CGGGGCTTCT GC

(2) INFORMATION FOR SEQ ID NO:1836:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 347 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1836:
 GGGGTGGGTB GGCCGTGTCT GGGGTTGGC CBTGTGGTT GCCTCTTGGT GTGCGCCGG 60
 GCGCGTCTTG GCTTTCTTCT CCTTCGGGCC CTCGGGCCGG TGCTTGTGGG CTCCTCCCGG 120
 CGGGCCTCCC CGGCGGGGG CTTCTTGGCG CTGGCGGGGG GGCCTCCTGC TCTGTGGCTG 180
 GCGGTTCCCTT GGTGTTCTGG GTGGTGGCGG GCGTGGTGGC CTCTGTGGGG GCGCGGGCT 240
 GCBGGGGTTG CCTGTCTGCT TCGTCCTTTG CGCTCCCGGG CCGCCGGGGT GGGTAGGCCG 300
 TGTCTGGGGG TTGGCCATGT TGGTTGCCGG GCCCGCGGCT GCAGGGG 347

(2) INFORMATION FOR SEQ ID NO:1837:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1837: 9
 CCGGGGCGG

(2) INFORMATION FOR SEQ ID NO:1838:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1838: 12
 GGCGGGGGGG CC

(2) INFORMATION FOR SEQ ID NO:1839:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1839: 11
 CCGGGGCCGC C

(2) INFORMATION FOR SEQ ID NO:1840:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1840: 8
 GGCCGTGT

(2) INFORMATION FOR SEQ ID NO:1841:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 664 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1841:

CGGTTTCCTT	TGCGGTCTTG	GCCCGGGCTC	CGGGTGCCCG	CCCGCCCGCC	GGCCGCCGCC	60
CCGCCGGGCT	GTCCCCGCCC	CGCCCCGGCC	CGGGGCGCGG	GGGCGGCCCT	CCCGCCCCCTC	120
TGGGCGGGCG	CGGGCGTCGG	CCGCTCGCGC	CTGGGGTTCC	CTCTCCTCCC	CCTGTGCGCC	180
TGCCTCTTGC	TCTTCTGCGT	CGCTGCGCTT	CTCCCCTCTC	CTCGGCCGTT	GCCTGTGCTG	240
TCCGTCTGTG	CGCCCTTCCG	TGGTGCTGTT	GTCTCTTCTG	CCCTCGGTGT	GCTGGTGCTG	300
GTGGTGGTGC	CTCTGCCCGT	GCTCGCCCTG	CCTGGGCTGG	CCTCTTCGGG	TGTGGCTTTG	360
GGGCTCTCTT	GGTTGCCCTT	TCTTCTCGTG	GTGCCTCTCC	TCCCTGGCTT	GGTCGTTGTC	420
TGGGGTGGTG	CTCCTCTCCC	TTTCCCTGCT	GGCCGTTTGT	CCTGTTTCT	GTCTTCCTCT	480
TTCTCTCTGT	TTCTCCGTTT	GGCTTGCTGC	TTGCGGGGCT	GTCTCCCTTG	CCCCTGTGGG	540
CTTTCCCTGG	TCCGGTCTTC	TCCTTGGGGG	TCGCCCTTCT	TGGTGGGCTG	GCTCGTCTGT	600
CTTTTTCCTT	CCTGGGGGTG	GCCGTTGTGG	GCGGTGTGGT	CCGCCTTGCC	TCTGCTGGTC	660
TTTC						664

(2) INFORMATION FOR SEQ ID NO:1842:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1842:

GGCCCCGGGC	9
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(2) INFORMATION FOR SEQ ID NO:1843:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1843:

GCCGGCGCGG GCG	13
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(2) INFORMATION FOR SEQ ID NO:1844:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1844:

GCCTGGGCTG GCC	13
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(2) INFORMATION FOR SEQ ID NO:1845:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1845:

GGGGGTGGCC G	11
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(2) INFORMATION FOR SEQ ID NO:1846:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1846:

GGGGGTGGCC GTTGTGGGCG G	21
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(2) INFORMATION FOR SEQ ID NO:1847:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 266 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1847:

GBTGTTTGT BCCBBBGCBT CBBGBBTBGC TTTGCTBTCT BBGGBTCBCB TTTBGBCBTB 60
GGBBBBCGCT GTBGGTCBGB BBGBTGTGCT TBCCTTCBCB CBGBGCTGCB GBBBTCBGGB 120
BGGCTGCCBB GBGBGCCBCG GCCBGCTTGG BGTCTGTGTT BCBCBCBGTG BGGTGCTCCG 180
GTGGCTTTTT GCTTGTGTGC TCTGCTGTCT CTGTTCCCTC CGGTGGTTTC TTCCTGGCTC 240
TTGTCCTTTC TCTTGGCCCT TGGCCC 266

(2) INFORMATION FOR SEQ ID NO:1848:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1848:
GCTCCGG 7

(2) INFORMATION FOR SEQ ID NO:1849:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1849:
CBBGBBTBGC 10

(2) INFORMATION FOR SEQ ID NO:1850:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1850:
CBCBCBGTGB GGTGC 15

(2) INFORMATION FOR SEQ ID NO:1851:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1851:
BCCBBBGCBT CBBGBBTBGC 20

(2) INFORMATION FOR SEQ ID NO:1852:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1852:
GCCBBGBGBG CCBCGGCCBG C 21

(2) INFORMATION FOR SEQ ID NO:1853:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 196 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1853:
GBTGTTTGT BCCBBBGCBT CBBGBBTBGC TTTGCTBTCT BBGGBTCBCB TTTBGBCBTB 60
GGBBBBCGCT GTBGGTCBGB BBGBTGTGCT TBCCTTCBCB CBGBGCTGCB GBBBTCBGGB 120
BGGCTGCCBB GBGBGCCBCG GCCBGCTTGG BGTCTGTGTT BCBCBCBGTG BGGTGCTCCG 180
GTGGCTTTTT GCTTGT 196

(2) INFORMATION FOR SEQ ID NO:1854:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1854:

ACAGGGGCTG	TAATCTTCAT	CTGCAGGTGG	CATGCCAGTG	AAATTTAGAT	CATCAAAATC	60
CCACATCTGT	GGATCTGTAA	TATTTGACAT	GTCTCTTTCA	GTTTCAGCAA	TGGTTTGATC	120
TAAGTGAAGC	ACCGGCCAGG	BCBGGGGCTG	TBBTCTTCBT	CTGCBGGTGG	CBTGCCBGTG	180
BBBTTTBGBT	CBTCBBBBTC	CCBCBTCTGT	GGBTCTGTBB	TBTTTGBCBT	GTCTCTTCB	240
GTTTCBGCBB	TGGTTTGBTC	TBBCTGBBGC	BCCGGCCBGG	TGGCTCGGTG	CTTCTGCCCC	300
TGTTGTGCGC	GCGCTCGGTT	GGTGTGGCCC	CTGTGGTGCT	TCGTTTCCCC	CTCTTTCTCT	360
TTGTTCGGGG	GTTCTTGTGG	CGGGCTGCTT	GTCTCGTTCC			400

(2) INFORMATION FOR SEQ ID NO:1855:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1855:
 CBGGGGC

7

(2) INFORMATION FOR SEQ ID NO:1856:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1856:
 GCBGGTGGC

9

(2) INFORMATION FOR SEQ ID NO:1857:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1857:
 GCGGCGCTC

9

(2) INFORMATION FOR SEQ ID NO:1858:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1858:

ACAGGGGCTG	TAATCTTCAT	CTGCAGGTGG	CATGCCAGTG	AAATTTAGAT	CATCAAAATC	60
CCACATCTGT	GGATCTGTAA	TATTTGACAT	GTCTCTTTCA	GTTTCAGCAA	TGGTTTGATC	120
TAAGTGAAGC	ACCGGCCAGG					140

(2) INFORMATION FOR SEQ ID NO:1859:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1859:

BCBGGGGCTG	TBBTCTTCBT	CTGCBGGTGG	CBTGCCBGTG	BBBTTTBGBT	CBTCBBBBTC	60
CCBCBTCTGT	GGBTCTGTBB	TBTTTGBCBT	GTCTCTTCB	GTTTCBGCBB	TGGTTTGBTC	120
TBBCTGBBGC	BCCGGCCBGG					140

(2) INFORMATION FOR SEQ ID NO:1860:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 346 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1860:

CTTGBGCBGG	BBGCTCTGGG	GCBGGGBGCT	GGCBGGGCCC	BGGGGGGTGG	CTTCCTGCBC	60
TGTCCBGBGT	GCBCTGTGCC	BCBGCBCBGC	CTGCBGGGCC	BTCBGCTTCB	TGGGGCTCTG	120
GGTGGCBGGT	CCBGCCTTGG	GTCTGGGTGG	GGCTGGGCTG	CBGGCTCCGG	GCGGTCCBGC	180
CBTGGGTCTG	GGGGCTGGGC	TGCBGGCTCC	GGGCGGGCGG	GTGCGGGCTG	CGTGTGGGG	240
GCTGCCCCGC	AGGCCCTGCG	GTCCBGCCBT	GGGTCTGGGG	GCTGGGCTGC	BGGCTCCGGG	300
CGGGCGGGTG	CGGGCTGCGT	GCTGGGGGCT	CCCCGCAGG	CCCTGC		346

(2) INFORMATION FOR SEQ ID NO:1861:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1861: 10

GBGCBGGBBB

(2) INFORMATION FOR SEQ ID NO:1862:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1862: 14

GCCBCBGCBCB CBGC

(2) INFORMATION FOR SEQ ID NO:1863:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1863: 10

GGGTGCGGGC

(2) INFORMATION FOR SEQ ID NO:1864:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 172 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1864:

CTTGBGCBGG	BBGCTCTGGG	GCBGGGBGCT	GGCBGGGCCC	BGGGGGGTGG	CTTCCTGCBC	60
TGTCCBGBGT	GCBCTGTGCC	BCBGCBCBGC	CTGCBGGGCC	BTCBGCTTCB	TGGGGCTCTG	120
GGTGGCBGGT	CCBGCCTTGG	GTCTGGGTGG	GGCTGGGCTG	CBGGCTCCGG	GC	172

(2) INFORMATION FOR SEQ ID NO:1865:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 818 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1865:

GCBCCGCCTG	GBGCCCTGGG	GCCCCCCTGT	CTTCTTGGGG	BGCGCCTCCT	CGGCCBGCTC	60
CBGCTCCCGG	BTCBTGCTTT	CBGTGCTCBT	GGTGTCTTTT	CCBGGGGBGB	GBGGGGCTGG	120
TCCTCTGCTG	TCCTTGCTGG	TGCTCBTGGT	GTCTTTTCCG	CCCTGGGGCC	CCCCGTCTCT	180
CTTGGGGCCT	CTTCCCTCTG	GGGGCCGTCT	CTCTCCCTCT	CTTGCGTCTC	TCTCTTTCTC	240
TCTCTCTCTT	CCCCTTTCCC	GCTCTTTCTG	TCTCGGTGTC	TGGTTTTCTC	TCTCCGCTGG	300
CTGCGCTGCT	GGCGTGGCTC	CTTGGCCTGT	GCTGTTCCTC	TCCGGTTTCC	TGTCTCTCTC	360
GTCTGTGCGC	CCCTCTGGGG	TCTCCCTCTG	GGTGGTGGTC	TTGTTGCTTG	GGCTGGGCTC	420
CGTGTCTCCB	GTGCTCBTGG	TGTCGCTGCB	GGGBGCGTCT	GCTGGCGCTG	GTCTCTGCTC	480
GTCCCTTGCTG	GTGCTCBTGG	TGTCCTTTCC	GCCCTGGGGC	CCCCCTGTCT	TCTTGGGGCC	540
TCTTCCCTCT	GGGGGCCGTC	TCTCTCCCTC	TCTTGCCTCT	CTCTCTTTCT	CTCTCTCTCT	600
TCCCTTTTCC	CGCTCTTTCT	GTCTCGGTGT	CTGGTTTCTC	CTCTCCGCTG	GCTGCCTGTC	660
TGGCCTGCGC	TCTTGGCCTG	TGCTGTTCCT	CCTCCGGTTC	CTGTCTCTCT	TGCTGTGCTC	720
CCCTCTGGG	GTCTCCCTCT	GGCGTGGTGG	TCTTGTGCTC	TGGGCTGGGC	TCCGTGTCTC	780
CBGTGCTCBT	GGTGTCCGCT	GBGGGBGCGT	CTGCTGGC			818

(2) INFORMATION FOR SEQ ID NO:1866:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1866:
 GGGGCCCCC 10

(2) INFORMATION FOR SEQ ID NO:1867:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1867:
 GGGGGCCGTC T 11

(2) INFORMATION FOR SEQ ID NO:1868:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1868:
 CCBGGGGBGB GBGGGGCTGG 20

(2) INFORMATION FOR SEQ ID NO:1869:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 364 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1869:
 CTCGGTGBGC GCGCTCGBBC TCGGGTGGGC CGGTGGTGBG CGGCGGCGBC BCGCGBBGG 60
 CCCTGCGCGC CGBGTBCC TGBGGGBGB BGTBGGCTTG CBGCBGBBCT CCCBGBGGG 120
 TGBCBGCBGC CBGTBGBGCT BCCTCGTCCT TCBTGGTBCC GTCGGTGTGG TGGCBGCGGC 180
 TGTGTGTGBB GCGBGGCTGG GCCCGTCTG CTGCTCCTCG TGCCGCCTCG TCCTTCATGG 240
 TACCGTCGGT GTGGTGGCCT CGGGTGGGCC GGTGGTGGGG CGCGCGCGCT CGCGTGGCTC 300
 CGGCTCTTCT TTCCCGGCTC CGTCGGCCCG GGGGCCTTGG TCTCCCTCGT CCTTCBTGGT 360
 BCCG 364

(2) INFORMATION FOR SEQ ID NO:1870:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1870:
 GCBGCBGGBC 10

(2) INFORMATION FOR SEQ ID NO:1871:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1871:
 CCCGGCTCCG 10

(2) INFORMATION FOR SEQ ID NO:1872:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1872:
 CGGCCCGGGG GCC 13

(2) INFORMATION FOR SEQ ID NO:1873:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1873:
 CBCGCGG 7

(2) INFORMATION FOR SEQ ID NO:1874:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 200 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1874:
 CTCGGTGBGC GCGCTCGBBC TCGGGTGGGC CGGTGGTGBG CGGCGGCGBC BCGCGGBBGG 60
 CCCTGCGCGC CGBGBTCBCC TGCBBGGGBG BGTBGGCTTG CBGCBGGBCT CCCBGGBGGG 120
 TGBCBGCBGC CBGTBGBGCT BCCTCGTCCT TCBTGGTBCC GTCGGTGTGG TGGCBGCGGC 180
 TGTGTGTGBB GGCGBGCTGG 200

(2) INFORMATION FOR SEQ ID NO:1875:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 530 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1875:
 BCCGGCGGBG CCGCCBGGGT GGBCTGGGBG TGGGTTTCTC CCCGCCGTTC TCBCCCBCCG 60
 CGCTGBGCTC BCGCCTBBG BCTGCTGTTT CTGGBGCTCC TTGGCBBGCC BCBBBCBGCB 120
 GBGBGBBBBT CBTGBGCBBB TBBTCCBTTC TGBBBBBBBG GGBTCBBBBB CCTCCCGTTC 180
 CCCGTTCCGC TGGCGCGCGC TCGGGGTCC TCGTGGGTTT CTCCCGCCG TTCTCCGGTC 240
 TGTTCCTTT GTGGGCTTCT TGTCTTTTGG GCTGTTCTTT TCCTGCTTGG CGTCTTTTCC 300
 TTTCTTTGTG CTCGGTTGTG GGTCCGCTGG TCCTTTGCCC TGTGTGTTTC TGCTGCCCGT 360
 TCGCCTGGCG CCGCTGCGG GTTCCTCGTG GGTTCCTCCC CGCCGTTCTC CGGTCTGTG 420
 CCTTTGTGGG CTTCTTGCT TTTTGGCTGT TCTTTCTCTG CTGGCGTCT TTTCCTTCT 480
 TTGTGCTCGG TTGTGGGTCC GCTGGTCTT TGCCCTGTGT GTTCTGCTG 530

(2) INFORMATION FOR SEQ ID NO:1876:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1876:
 CCGGCGGBGC CGCCBGGGTG GBC 23

(2) INFORMATION FOR SEQ ID NO:1877:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1877:
 CCGCCBGGG 9

(2) INFORMATION FOR SEQ ID NO:1878:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1878:
 GGCGCGCGC 9

(2) INFORMATION FOR SEQ ID NO:1879:
 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1879:
 GTGGGTCCGC 10

(2) INFORMATION FOR SEQ ID NO:1880:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 399 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1880:
 GCCCTGTCGG GCGGAAGCC TCTCTCTCT CCCCAGATCC GCGACAGGCC GCAGGCAAGA 60
 ACCAGCGCAA CCAGGGCGCG TCCGCACAGA CTGGAGGCG GCTGCATGCT GCTACCTGCT 120
 CCAGAAGCGT CCGGTGGCCG CCGCGCCCTG TCGGGCGGGB BGCCTCTCTC CTCTCCCCBG 180
 BTCCGCGBCB GGCCGCBGGC BBGBBCCBGC GCBCCCBGGG CGCGTCCGCB CBGBCTTGGB 240
 GGC GGCTGCTBCC TGCTCGGGCG GGBBGCCTCC GGTGGCCGCC GCGCGTCCCG 300
 TGGCCGCCGC GCCTCTCTCC TCTCCCGTG GCCCTGTCGG GCGGGTCTCT CCGTCCTGTC 360
 TCCTTTTCTT TTGCTGTCTT GTCTTCCGT CTCTGCTTT 399

(2) INFORMATION FOR SEQ ID NO:1881:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1881:
 CCGGCGGGBB GCC 13

(2) INFORMATION FOR SEQ ID NO:1882:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1882:
 CGGGCGGG 8

(2) INFORMATION FOR SEQ ID NO:1883:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1883:
 CCGCBCBGB 10

(2) INFORMATION FOR SEQ ID NO:1884:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 144 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1884:
 GCCCTGTCGG GCGGAAGCC TCTCTCTCT CCCCAGATCC GCGACAGGCC GCAGGCAAGA 60
 ACCAGCGCAA CCAGGGCGCG TCCGCACAGA CTGGAGGCG GCTGCATGCT GCTACCTGCT 120
 CCAGAAGCGT CCGGTGGCCG CCGC 144

(2) INFORMATION FOR SEQ ID NO:1885:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 144 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1885:
 GCCCTGTCGG GCGGGBGCC TCTCTCTCT CCCCGBTCC GCGBCBGGCC GCBGGCBBGB 60

BCCBGCGBB CCBGGGCGCG TCCGBCBGB CTTGGBGGCG GCTGCBTGCT GCTBCCTGCT 120
CCBGBBGGCT CCGGTGGCCG CCGC 144

(2) INFORMATION FOR SEQ ID NO:1886:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 784 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1886:

GTCTGTCCTC CCCGTCCTCCT CCACTGCTT CTCCCGGGG CTCCCGGGG TTCGGGTGGC 60
CGGTGTCCCG GGCTCCGGCG CGCGGGCGGC TTCGGCTGCG GGTGGGTGGC GCGGGCTGCC 120
GGGTCCGCGC GGCGCCTGGG CCCTTGCTGCT GCTTTTGTCT TGTTCGGTTC TGGCTGCTCC 180
GGTCTGTGTT GTGGTTGTTT TGTTCCTTCT TGGGTGTGGG CCTTGCGGTT TTGGCTGTGG 240
GCCCTTTGGG GCCTTGCGCTT CTGGCTCGTC TGTCTCTCCC GTCTCTCCC ACTGCTTCTC 300
CCGGGGGCTT CCCCCTGCTC GGGTGGCCGG TGTCCCGGGC TCCGGCGCGG CGGCGGCTTC 360
GGCTGCGGGT GGGTGGCGCG GGCTGCCGGG TCCGCGCGGC GCCTGGGCCC TTGTGCTGCT 420
TTTTGCTTGT TCCGTTCTGG CTGCTCCGGT CTGTGTTGTG GTTGTTTTGT TTCTTCTTGG 480
GTGTGGGCTT TGCGGTTTGT GCTGTGGGCC CTTTGGGGCC TTGGCTTCTG GCTCCATCCA 540
CATGATTGCT TAGATTGTG CTGTATCTCT CAGGATTATC ACTGATTACA CATCCAACCA 600
GTGCCAGCCA AAAGGATGCC CTGAGGCAA GGGTTTCCAT CTTGAGGCAA ATTTGAGGAC 660
BTCCBCBTGB TTGCTTBGBT TTGTGCTGTB TCTCTCBGBB TBTCTCBTGB TBTCTCBTCC 720
BBCCBGTGCC BGCCBBBGG BTGCCCTGBG GCBGBGGGTT TCCBTCTTGB GGCBBBTTCG 784
BGGG

(2) INFORMATION FOR SEQ ID NO:1887:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1887:

GBGGCBBBGG G 11

(2) INFORMATION FOR SEQ ID NO:1888:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1888:

GCCBGCCBBB BGGG 14

(2) INFORMATION FOR SEQ ID NO:1889:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1889:

CGCCTGGGCC C 11

(2) INFORMATION FOR SEQ ID NO:1890:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 349 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1890:

CTGCTGBGGC TTGGGTCTCC GGGCBBTCT CTGCBGBBGB TGCTCBBBGG GCTCCGGCBG 60
TTCTCTCTTG BTCTGGTCGC TGTCGTBCCB GTCGGBCCBG TBBTTCBGBT CBTCBTTGGC 120
TCCTBTTTCT TCTGCBBCB GCTGBGTGGG GBCBBGBBBB BBGBCTGCCB BGGCCBCBGB 180
GBTTTTCBTG TTGBBTTTTC GBCGGBCCBG TCCCGCGGGG TGCTGAGTTT CTCTGGTTCC 240
TCCGBGCGCB CGTGGTCGCT CCGCGTTTCT CTGGTTCCTC CGGTCCCGCG GGGTGTCTGT 300
TGTCGCTGT CGTGGCTTGG GTCTCCGGGC GGTTCCTTC CTTTCCGC 349

(2) INFORMATION FOR SEQ ID NO:1891:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1891:
 CTCCGGGCGB 10

(2) INFORMATION FOR SEQ ID NO:1892:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1892:
 GGCCBCBGG 10

(2) INFORMATION FOR SEQ ID NO:1893:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1893:
 GGGTCTCCGG GCG 13

(2) INFORMATION FOR SEQ ID NO:1894:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1894:
 GGGTCTCCGG GCGG 14

(2) INFORMATION FOR SEQ ID NO:1895:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 250 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1895:
 CTGCTGBGGC TTGGGTCTCC GGGCGBTCT CTGCBGBBGB TGCTCBBBGG GCTCCGGCBG 60
 TTCCTCCTTG BTCTGTGTCG TGTCTGTCBCCB GTCGGBCCBG TBBTTCBGBT CBTCTBTGGC 120
 TCCTBTCTCT TCTGCBBCB GCTGBGTGGB GBCBBGBBBB BBGBCTGCCB BGGCCBCBGB 180
 GBTCTTCBTG TTGGBTCTTG CGBCGBCBG TCCCGCGGGG TGCTGAGTTT CTCTGGTTCC 240
 TCCGBGCGCB 250

(2) INFORMATION FOR SEQ ID NO:1896:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 662 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1896:
 GGGCTBBGBT GBTCCBCBTC BCTBCCBCGT TGCCCBCCBC BGBGGTCBCC BCBTGBCCG 60
 TGTBGGCBGC TGCCCBBBGG BCBTTTGCC BGGCTGTTG CBCGBBCTGB TTGGGTTCGG 120
 BGGTGTBTGT GGBGTGTTT GGGGBBGGT CTGBGTCCBC CGGGBGGBCG TTBTCBTTT 180
 CGBBGTBGG CGGTBBBGGC CTBCTBTCTG TBCBCBCCCC CCCTCTGCBG CBGBGTCTTG 240
 TCGTGGCGCC TGGGGCTCBG GGTCCGGGCT AAGATGATCC ACATCACTAC CACGTGCCC 300
 ACCACAGAGG TCACCACAAT GACCGTGTAG GCAGCTGCCC AAAGGACAAT TTGCCAGGCT 360
 GGTTCACGA ACTGATTGGG TTCCGAGGTG TTAGTGGAGA TGTTTGGGGA GAGGTCTGAG 420
 TCCACCGGGA GGACGTTATC CATTTCGAAG CTAGGCGGTA AAGCCCTACT ATCTGTACAC 480
 AACCCCTC TCAGCAGAG TCCTGTCGTG GCGCCTGGGG CTCAGGGTCC GTCCTGTCGT 540
 GGCGCTGGG GCTCTCTTT TGTGGGCTCT TTGGTGGCTG TGGCTGTGGT CTCTGTGGTT 600
 GCTGCCCTGG GTCTGGGGT GTGGCTTGG GGCCGTCCTC TGGCTCCTCC TCGTGGGCCC 660
 CC 662

(2) INFORMATION FOR SEQ ID NO:1897:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1897:
 GGBGBGBCG 9

(2) INFORMATION FOR SEQ ID NO:1898:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1898:
 GGGTCCG 7

(2) INFORMATION FOR SEQ ID NO:1899:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1899:
 GGGCCCCC 8

(2) INFORMATION FOR SEQ ID NO:1900:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 567 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1900:
 GGBGCTGBTB CTGCBGATTT CBGBGGGBBG BBCCCTGBTB CTCBCCBGCT TCBGCTCTGG 60
 BGCBCBBGBG BBBGBGCBGC BGGGGGBGBG GBBGBBGCBCB CBTCTTCCCB GBGBGGCTGC 120
 CTGBGCBBBT GCTGGTTTTC CTTTCCBGTC TTGGGTTTTB TBBCTCCCBG BBGGCBBGBG 180
 BGGGGCBGBG CGTTTTCTTC TCTCGCTGGT TTTCTTTTCC TGGCAGTGGG TGGGGGTGGG 240
 GGTGGGGTGG CTTCTTGTT CCTGGGGTG TCCTCTTGCT CTGGGCTTTT CTCCTTTT 300
 CCTTCTGTC TGTTCCTG GGGCTCTCT CTGTCTCTGT GTCCTTGCCC TGGCCCTCTT 360
 CCTCTCTG TCTCCTGTCC CTGTGTTCG CCCGTCTCC CTCTCCTGAC CTCCTTTTCC 420
 TCCGCTGGT GGGGCCCTGC CTGTTCTCTG CTCCTGGCT TGGGGTTTCT TCTGTGTGTC 480
 TTCTTCTCT GTTGGCTGGC TTTCTCTTC TTTTGTCTTC CTGGGTGCCC CTTCTTCTT 540
 TCTTGGGTCC TTGGTGCTTG GGCTGGG 567

(2) INFORMATION FOR SEQ ID NO:1901:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1901:
 GGBGCBCBBG 10

(2) INFORMATION FOR SEQ ID NO:1902:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1902:
 GBBGCBGC 8

(2) INFORMATION FOR SEQ ID NO:1903:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1903:
GGGGCBBGGC G

11

(2) INFORMATION FOR SEQ ID NO:1904:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 190 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1904:

GGBGCTGBTB	CTGCBGATTT	CBGBGGGBBG	BBCCCTGBTB	CTCBCCBGCT	TCBGCTCTGG	60
BGCBGBBGBG	BBBGBGCBGC	BGGGGGBGBG	GBBGBBGCBG	CBTCTTCCCB	GBGBGGCTGC	120
CTGBGCBBBT	GCTGGTTTTC	CTTTCBCGTC	TTGGGTTTBT	TBBCTCCCBG	BBGGCBBGBG	180
BGGGGCBBGG						190

(2) INFORMATION FOR SEQ ID NO:1905:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2028 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1905:

GCGTCTTGGG	GTGCBGGGCC	CBTCTGCTG	CGCCTGGGCG	CTGCTGTGCG	TCCGTCTGCT	60
GGGGGGCCCG	GGTGGCTGGG	CCCTGCTGCG	CGCACGACCC	CGGGCCGACC	CGAGGCTCGG	120
GGGGCTGTGT	TCTGGCGCTG	GTGGGCTTGG	GCCCCCTCTG	GGGCTGGGTT	TCCTGCTGCG	180
CCTGGGCGCT	GGCGTCTTGG	GGTGCGGGGC	CGGGGGGCGG	GGGGGGCGCT	GTTCGTGGGC	240
CTGGGGGTGC	CTGTGGCTGC	CGGTTGCCCC	GATTGGTGCG	GCCGTCCTGC	TGCCGGTCTG	300
TGGCTGGGTC	CCCCCGCCCG	TTTCTGCGGG	TCCGCGTGGG	GTGCTCCGGT	TCCTCGTGCC	360
GCTGCTGCGT	TGTCTTTCCG	GCCGTGGCGG	CGTGGTGGTC	CGCCCCCCTT	GGCCTTCTGC	420
TCGGGGTCTG	GCTGGTTGCC	GGTGCCCTTG	GCGGCGGTCT	TCTTCTCTGG	GGCTCTGGGC	480
CCGGCCGCTC	TCGGGCGTCT	CGTGTTCGCT	CTGTGCTGT	TCCGGCCGCT	CCTTCTCTTT	540
CCGCCGCCGC	CGCTCCCCGC	CCGCTCGTCG	CCCTGGCCCG	GCCTCCTCCT	GGCCGCTGTC	600
TCGGGCGGCG	GCCTTGGGCG	TCCGTTTGGG	GCTGCCTCTG	GCGCTTCCGG	CCCTCGGCCT	660
GGGCGCTCTC	TTCCGCCCTG	GCTGGTGGCC	CTCGTGGGCG	CCTCCTGGCC	TCCGGTGTCC	720
TGTGGTCCCC	CGGCTGGTGG	CCGGGCGGCT	TGGGCGGGCG	TGGGCGCCGG	CGGGTCTCTC	780
GGGCTGCCCT	TCFCCGCCGG	GGGTCCCGCG	CTCCTGCTGT	TCCCTGGGCT	CTTCTGCCTC	840
TCTCTGGGT	GGGTGCTGGG	TGCCGGGGTC	TCCGGGCTTG	CCCCGCGCTG	CTGGGCGTTC	900
TGCGGTCTTG	GGGTGTGCTG	TGGCCCGGCT	CGTGTGCGCC	TCCGTGCGCC	GTCGCCGGCC	960
TCGTCCCCCT	CTGGGTGCGC	GGCGGGCTGG	TCCTGGCGTT	TTGCTCCTTC	CTGGGCGTCT	1020
TGGGTGCBG	GGCCCBTCTT	GCTGCGCCTG	GGCGCTGCTG	TGCGTCCGTC	TGCTGGGGGG	1080
CCGGGGTGGC	TGGGCCCTGC	TTGCCGCACG	ACCCCGGGCC	GACCCGAGGC	TCGGGGGGCT	1140
GTGTTCTGGC	GCTGGTGGGC	TTGGGCCCTT	CTGGGGGCTG	GGTTTCTCTG	TGCGCCTGGG	1200
CGTGGCGTTC	TTGGGTGGCG	GGGCCGGGGG	GCCGGGGGGC	CGCTGTTCGT	GGGCCTGGGG	1260
GTGCTGTGG	CTGCCGGTTG	CCCCGGTTGG	TGGCGCCGTC	CTGCTGCCGG	TCGTTGGCTG	1320
GGTCCCCCGG	CCCGTTTCTT	GGGGTCCGCG	TGGGGTGTCT	CGGTTCTCTG	TGCCGCTGCT	1380
GCCTTGTCTT	TCCGGCCGTG	GCGGCGTGGT	GGTCCGCCCC	CCCTGGCCTT	CTGCTCGGGG	1440
TCTGGCTGGT	TGCCGGTGCC	CTTGGCGGCG	GTCTTCTTCC	TGGTGGCTCT	GGGCCCGGCC	1500
GGTCTCGGGC	GTCTCGTGTG	CGCTCTTGTG	CTGTTCCGCG	CGCTCCTTCC	TCTTCCGCGC	1560
CCGCCGCTCC	CGCCCGCTC	GTGCGCTGG	CCCGGCCCTC	TCCTGGCCGC	TGTCTCGGGC	1620
GGGGGCTTGG	GCGCTCCGTT	TGGGGCTGCC	TCTGGCGCTT	CCGGCCCTCG	GCCTGGGCGC	1680
TCTCTTCCGC	CTGTGCTGGT	GGCCCTCGTG	GGCCCTCCTT	GGCCTCCGGT	GTCCTGTGGT	1740
CCCCCGGCTG	GTGGCCGGGC	CGGTGGGCG	GGCGTGGGCG	CCGGCGGGTC	CTCCGGGCTG	1800
CCCTTCTCCG	CCGGGGGTCC	CGCGCTCCTG	CTGTTCCCTG	GGCTCTTCTG	CCTCTCTCCT	1860
GGGTGGGTGC	TGGGTGCCGG	GGTCTCCGGG	CTTGCCCGCG	GCTGCTGGGC	GTTCTGCGGT	1920
CTTGGGGTTG	TCTGTGGCCC	CGCTCGTGTC	GCCCTCCGTC	GCCCGTCGCC	GGCCTCGTCC	1980
CCTCTGCGGT	GCGCGGCGGG	CTGGTCTCTG	CGTTTGTCTC	CTTCTCTGG		2028

(2) INFORMATION FOR SEQ ID NO:1906:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1906:

GCGGGGCCG

9

(2) INFORMATION FOR SEQ ID NO:1907:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1907:
 CGGGGGGC 8

(2) INFORMATION FOR SEQ ID NO:1908:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1908:
 GCGCGGCGGG C 11

(2) INFORMATION FOR SEQ ID NO:1909:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1909:
 GCGTCTTGGG GTGCBGGGCC CBTCCTGCTG CGCCTGGGCG CTG 43

(2) INFORMATION FOR SEQ ID NO:1910:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 535 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1910:
 CTGCCCCBGT TTTTGBTCCT CBCBTGCCGT GGGGBGGBCB BTGGCTGCCT CCCCAGGGTT 60
 TCTGCTGCTT GCTGCTTCTT TCCCGTCTCC CTTCTTTCCC GTCTCCTTTT TGCCTCTTTG 120
 GGTTCCCTGTT GTTTCTGGCC TGCTTGGTGG CGGCTTGTC GTTTCCTCTC TCTTCTCTTG 180
 GGTCTCCGCT TCTCGTCTG CTTTTCTCTG TCTCTGTCGC GCCGTTCTCTC CTCCGGCGTC 240
 CTCCTGCCCT GTGCTGTTTG CCTCGGGTGG TGGGGGTCCC GGTGCTCCCC CGGCGGGCCG 300
 GCTGGTTGCC TGGGCCTGTC TGGTGGGGTG TGGGGCCGCT GGGTTGGGGG TGTGCTGGGC 360
 TCTTCTGTGG CCTGTGGGGC TGTTGGTGTC TCTGTGGGCG TGTGCTGGGT CTTGGGGCTT 420
 CCTCCCTTGT GCTGGGTGCG GCCTCCCCGC CCCCCTTCTG GGCCGGTGCG CTGGCTCCTT 480
 GTGGGCGCTT CTGGCTCTTG CCCTGTCCTT CTTGCGCTCG TGGCTGCTGG GCTGC 535

(2) INFORMATION FOR SEQ ID NO:1911:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1911:
 CCCCAGGG 8

(2) INFORMATION FOR SEQ ID NO:1912:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1912:
 GGGGCCGCTG GG 12

(2) INFORMATION FOR SEQ ID NO:1913:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1913:
 GGGGGTGTGG 10

(2) INFORMATION FOR SEQ ID NO:1914:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1914:
 CTGCCCCBGT TTTTGBTCCT CBCBTGCCGT GGGGBGGBCB BTGG 44

(2) INFORMATION FOR SEQ ID NO:1915:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 756 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1915:
 CGGCCCTTCT CACTGGAGGC ACCGGGCAGT CCTCCATGGG AGGTTGGGC TTGGCCGGGG 60
 CTGCCCCGTG CCTCCTCTTG GCTGGTCCCT CGTTGTCCTT GGGCCCCGCT CCCGCTGCTC 120
 GGCCTCCGTG TTCTTTGGCC TCTTGCTCCG CCTGCTGTCT TGTCCCGTCC CTCCTCGCT 180
 TGCCTTTCCC TCTTCTTGT CTTCCAGGCC TTCCTCCGCT TCCGCTGCTG GGGCCCGCGC 240
 CGGGGGGGCG CTCGGCTCCG CGGCTTCCTC CCCGGCTGGG GGGTCCTGGT CTCGGGGGCC 300
 TCGGGCTCGC GGGCTCGGGG CTGCGTGCGC CGCGCGCGGC GTCCGCGGTG GGTGGCGCTG 360
 TCCCGCCGTG GTGTGTCTCC GTTCTCGTCC TCGCCCGTCC TGGTCTGCCC GTGGGGTCCT 420
 GGGCGTGCTG GGGGGCGTCT GGTGCCTCGT CTGCCCCGTG GGGCTTCGGG CTCGGGGCTG 480
 TTCGTCCCCC TGCCCGCTCT GTGGCCTCCG GGGCTCCTCG TTTTCGCTGC TTCGGGTGTC 540
 CTTCTCGGCG TGTGGCCCG GGTCCCGGCC CTGCTGGGCT GGGCGGGGTC GCTGCCCTGG 600
 GCTTCTGGCC CGTCTGGTTG TCTGTGCTG CTGTCTCGG GTTCTGGCC TCTGTGCTGG 660
 GCGCTTCTCT GCCTCCTGCT CCGCCCTCCT GGTGGCTCGG CTGGGGGTGC CCGTCCGGGG 720
 GTGGGTGTGG GGTGTTTTCG GGGTCCTCCC CTTCCC 756

(2) INFORMATION FOR SEQ ID NO:1916:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1916:
 GGGCGGGGTC GC 12

(2) INFORMATION FOR SEQ ID NO:1917:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1917:
 GCGCCGTCC 9

(2) INFORMATION FOR SEQ ID NO:1918:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1918:
 GGGCGTGCTG G 11

(2) INFORMATION FOR SEQ ID NO:1919:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1919:
 CGGCCCTTCT CACTGGAGGC ACCGGGCAGT CCTCCATGGG AGG 43

(2) INFORMATION FOR SEQ ID NO:1920:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 302 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1920:

GTTTCATCTT	GGCTTTATCC	TCTCCCCTTG	TTCTCCCCT	CTCCTGCTCT	GGRGTCTCCT	60
CTTCCCTCCC	TCCCCTGCCG	TGTTGTCTGT	GGGTGTCGTT	TCGCTCTTGT	TGCCCTGGGC	120
CCTTCCCTGC	TGGGGGGGAG	TTTCATCTTG	GGTTCBTCT	TGGCTTTBTC	CTCTCCCCTT	180
GTTCCTCCCC	TCTCCTGCTC	TGGRGTCTCC	TCTTCCCTCC	CTCCCCTGCC	GTGTTGTCTG	240
TGGGTGTCGT	TTGCTCTTG	TTGCCCTGGG	CCCTTCCCTG	CTGGGGGGGB	GTTTCBTCTT	300
GG						302

(2) INFORMATION FOR SEQ ID NO:1921:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1921:

GGGGGAGTT	9
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(2) INFORMATION FOR SEQ ID NO:1922:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1922:

GCCCTGGGCC C	11
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(2) INFORMATION FOR SEQ ID NO:1923:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 151 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1923:

GTTTCATCTT	GGCTTTATCC	TCTCCCCTTG	TTCTCCCCT	CTCCTGCTCT	GGRGTCTCCT	60
CTTCCCTCCC	TCCCCTGCCG	TGTTGTCTGT	GGGTGTCGTT	TCGCTCTTGT	TGCCCTGGGC	120
CCTTCCCTGC	TGGGGGGGAG	TTTCATCTTG	G			151

(2) INFORMATION FOR SEQ ID NO:1924:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 151 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1924:

GTTTCBTCTT	GGCTTTBTCC	TCTCCCCTTG	TTCTCCCCT	CTCCTGCTCT	GGRGTCTCCT	60
CTTCCCTCCC	TCCCCTGCCG	TGTTGTCTGT	GGGTGTCGTT	TCGCTCTTGT	TGCCCTGGGC	120
CCTTCCCTGC	TGGGGGGGBG	TTTCBTCTTG	G			151

(2) INFORMATION FOR SEQ ID NO:1925:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1925:

GGGGGBG	7
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(2) INFORMATION FOR SEQ ID NO:1926:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1926:
GTGGGTGTCC 10

(2) INFORMATION FOR SEQ ID NO:1927:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 91 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1927:
CCGTGTTGTC BGTGGTGCTG CCCGTTTGBG GTBTGGCGCT CCBCCBBTTC CCTTTTCTCC 60
TTGTTTCCG TTTCTCTTGC CGTCTGTGGT T 91

(2) INFORMATION FOR SEQ ID NO:1928:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1928:
CCCGTTTGBG GTBTGGC 17

(2) INFORMATION FOR SEQ ID NO:1929:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1929:
GCTCCBCCBB TTCCCTTTTC TCC 23

(2) INFORMATION FOR SEQ ID NO:1930:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1930:
TTGTTTCCG TTTCTCTTG 19

(2) INFORMATION FOR SEQ ID NO:1931:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1931:
CCGTCTGTGG TT 12

(2) INFORMATION FOR SEQ ID NO:1932:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1932:
CCCGTTTGAG GTATGGC 17

(2) INFORMATION FOR SEQ ID NO:1933:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1933:
GCTCCBCCAA TTCCCTTTTC TCC 23

(2) INFORMATION FOR SEQ ID NO:1934:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1934:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCCC GGCC 34

(2) INFORMATION FOR SEQ ID NO:1935:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1935:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCCC GGC 33

(2) INFORMATION FOR SEQ ID NO:1936:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1936:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCCC GG 32

(2) INFORMATION FOR SEQ ID NO:1937:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1937:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCCC G 31

(2) INFORMATION FOR SEQ ID NO:1938:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1938:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCCC 30

(2) INFORMATION FOR SEQ ID NO:1939:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1939:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCCC 29

(2) INFORMATION FOR SEQ ID NO:1940:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1940:
 GGGCCCBGCC CCGCCGCCTT TTCTBGCC 28

(2) INFORMATION FOR SEQ ID NO:1941:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1941:
GGGCCC BGCC CCGCCGCCTT TTCTBGC 27

(2) INFORMATION FOR SEQ ID NO:1942:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1942:
GGGCCC BGCC CCGCCGCCTT TTCTBG 26

(2) INFORMATION FOR SEQ ID NO:1943:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1943:
GGGCCC BGCC CCGCCGCCTT TTCTB 25

(2) INFORMATION FOR SEQ ID NO:1944:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1944:
GGGCCC BGCC CCGCCGCCTT TTCT 24

(2) INFORMATION FOR SEQ ID NO:1945:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1945:
GGGCCC BGCC CCGCCGCCTT TTC 23

(2) INFORMATION FOR SEQ ID NO:1946:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1946:
GGGCCC BGCC CCGCCGCCTT TT 22

(2) INFORMATION FOR SEQ ID NO:1947:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1947:
GGGCCC BGCC CCGCCGCCTT T 21

(2) INFORMATION FOR SEQ ID NO:1948:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1948:
GGGCCC BGCC CCGCCGCCTT 20

(2) INFORMATION FOR SEQ ID NO:1949:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1949:
 GGGCCCBGCC CCGCCGCT 19

(2) INFORMATION FOR SEQ ID NO:1950:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1950:
 GGGCCCBGCC CCGCCGCC 18

(2) INFORMATION FOR SEQ ID NO:1951:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1951:
 GGGCCCBGCC CCGCCGC 17

(2) INFORMATION FOR SEQ ID NO:1952:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1952:
 GGGCCCBGCC CCGCCG 16

(2) INFORMATION FOR SEQ ID NO:1953:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1953:
 GGGCCCBGCC CCGCC 15

(2) INFORMATION FOR SEQ ID NO:1954:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1954:
 GGGCCCBGCC CCGC 14

(2) INFORMATION FOR SEQ ID NO:1955:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1955:
 GGGCCCBGCC CCG 13

(2) INFORMATION FOR SEQ ID NO:1956:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1956:

GGGCCCBGCC CC

12

(2) INFORMATION FOR SEQ ID NO:1957:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1957:

GGGCCCBGCC C

11

(2) INFORMATION FOR SEQ ID NO:1958:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1958:

GGCCCBGCCC CGCCGCTTT TCTBGCCCCG GC

32

(2) INFORMATION FOR SEQ ID NO:1959:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1959:

GCCCBGCCCC GCCGCCTTT CTBGCCCCG C

31

(2) INFORMATION FOR SEQ ID NO:1960:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1960:

CCCBGCCCC CCGCCTTTTC TBGCCCCGC

30

(2) INFORMATION FOR SEQ ID NO:1961:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 29 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1961:

CCBGCCCCGC CGCCTTTTCT BGCCCCGGC

29

(2) INFORMATION FOR SEQ ID NO:1962:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1962:

CBGCCCCGCC GCCTTTTCTB GCCCCGGC

28

(2) INFORMATION FOR SEQ ID NO:1963:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1963:

BGCCCCGCCG CCTTTTCTBG CCCCCGC

27

(2) INFORMATION FOR SEQ ID NO:1964:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1964:
GCCCCGCCGC CTTTCTBGC CCCGGC 26

(2) INFORMATION FOR SEQ ID NO:1965:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1965:
CCCCCGCCGC TTTCTBGCC CCGGC 25

(2) INFORMATION FOR SEQ ID NO:1966:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1966:
CCCGCCGCCT TTTCTBGCCC CGGC 24

(2) INFORMATION FOR SEQ ID NO:1967:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1967:
CCGCCGCCTT TTCTBGCCCC GGC 23

(2) INFORMATION FOR SEQ ID NO:1968:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1968:
CGCCGCCTTT TCTBGCCCCG GC 22

(2) INFORMATION FOR SEQ ID NO:1969:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1969:
GCCGCCTTTT CTBGCCCCGG C 21

(2) INFORMATION FOR SEQ ID NO:1970:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1970:
CCGCCTTTTC TBGCCCCGGC 20

(2) INFORMATION FOR SEQ ID NO:1971:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1971:
CGCCTTTTCT BGCCCCGGC 19

(2) INFORMATION FOR SEQ ID NO:1972:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1972:
 GCCTTTTCTB GCCCCGC 18

(2) INFORMATION FOR SEQ ID NO:1973:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1973:
 CCTTTTCTBG CCCC GGC 17

(2) INFORMATION FOR SEQ ID NO:1974:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1974:
 CTTTCTBGC CCCGC 16

(2) INFORMATION FOR SEQ ID NO:1975:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1975:
 TTTTCTBGCC CCGGC 15

(2) INFORMATION FOR SEQ ID NO:1976:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1976:
 TTTCTBGCCC CGGC 14

(2) INFORMATION FOR SEQ ID NO:1977:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1977:
 TTCTBGCCCC GGC 13

(2) INFORMATION FOR SEQ ID NO:1978:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1978:
 TCTBGCCCCG GC 12

(2) INFORMATION FOR SEQ ID NO:1979:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1979: 11
CTBGCCCCGG C

(2) INFORMATION FOR SEQ ID NO:1980:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1980: 25
GCGBGGCTGT CBCCTCGCTG GGCCC

(2) INFORMATION FOR SEQ ID NO:1981:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1981: 24
GCGBGGCTGT CBCCTCGCTG GGCC

(2) INFORMATION FOR SEQ ID NO:1982:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1982: 23
GCGBGGCTGT CBCCTCGCTG GGC

(2) INFORMATION FOR SEQ ID NO:1983:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1983: 22
GCGBGGCTGT CBCCTCGCTG GG

(2) INFORMATION FOR SEQ ID NO:1984:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1984: 21
GCGBGGCTGT CBCCTCGCTG G

(2) INFORMATION FOR SEQ ID NO:1985:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1985: 20
GCGBGGCTGT CBCCTCGCTG

(2) INFORMATION FOR SEQ ID NO:1986:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1986: 19
GCGBGGCTGT CBCCTCGCT

(2) INFORMATION FOR SEQ ID NO:1987:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1987:
GCGBGGCTGT CBCCTCGC 18

(2) INFORMATION FOR SEQ ID NO:1988:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1988:
GCGBGGCTGT CBCCTCG 17

(2) INFORMATION FOR SEQ ID NO:1989:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1989:
GCGBGGCTGT CBCCTC 16

(2) INFORMATION FOR SEQ ID NO:1990:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1990:
GCGBGGCTGT CBCCT 15

(2) INFORMATION FOR SEQ ID NO:1991:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1991:
GCGBGGCTGT CBCC 14

(2) INFORMATION FOR SEQ ID NO:1992:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1992:
GCGBGGCTGT CBC 13

(2) INFORMATION FOR SEQ ID NO:1993:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1993:
GCGBGGCTGT CB 12

(2) INFORMATION FOR SEQ ID NO:1994:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1994:
GCGBGGCTGT C 11

(2) INFORMATION FOR SEQ ID NO:1995:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1995:
GCGBGGCTGT 10

(2) INFORMATION FOR SEQ ID NO:1996:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1996:
CGBGGCTGTC BCCTCGCTGG GCCC 24

(2) INFORMATION FOR SEQ ID NO:1997:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1997:
GBGGCTGTCTC CCTCGCTGGG CCC 23

(2) INFORMATION FOR SEQ ID NO:1998:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1998:
BGGCTGTCTC CTGCTGGGC CC 22

(2) INFORMATION FOR SEQ ID NO:1999:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1999:
GGCTGTCTCCT TCGCTGGGCC C 21

(2) INFORMATION FOR SEQ ID NO:2000:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2000:
GCTGTCTCCT CGCTGGGCC 20

(2) INFORMATION FOR SEQ ID NO:2001:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2001:
CTGTCTCCTC GCTGGGCC 19

(2) INFORMATION FOR SEQ ID NO:2002:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2002: 18
 TGTBCBCTCG CTGGGCCC

(2) INFORMATION FOR SEQ ID NO:2003:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2003: 17
 GTCBCCTCGC TGGGCCC

(2) INFORMATION FOR SEQ ID NO:2004:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2004: 16
 TCBCTCGCT GGCCCC

(2) INFORMATION FOR SEQ ID NO:2005:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2005: 15
 CBCCTCGCTG GGCCC

(2) INFORMATION FOR SEQ ID NO:2006:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2006: 14
 BCCTCGCTGG GCCC

(2) INFORMATION FOR SEQ ID NO:2007:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2007: 13
 CCTCGCTGGG CCC

(2) INFORMATION FOR SEQ ID NO:2008:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2008: 12
 CTCGCTGGGC CC

(2) INFORMATION FOR SEQ ID NO:2009:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2009: 11
TCGCTGGGCC C

(2) INFORMATION FOR SEQ ID NO:2010:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2010: 10
CGCTGGGCC

(2) INFORMATION FOR SEQ ID NO:2011:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2011: 31
GCGCGGCCGT CBTGGCGGCG TCGGGCCGGG C

(2) INFORMATION FOR SEQ ID NO:2012:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2012: 30
GCGCGGCCGT CBTGGCGGCG TCGGGCCGGG

(2) INFORMATION FOR SEQ ID NO:2013:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2013: 29
GCGCGGCCGT CBTGGCGGCG TCGGGCCGG

(2) INFORMATION FOR SEQ ID NO:2014:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2014: 28
GCGCGGCCGT CBTGGCGGCG TCGGGCCG

(2) INFORMATION FOR SEQ ID NO:2015:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2015: 27
GCGCGGCCGT CBTGGCGGCG TCGGGCC

(2) INFORMATION FOR SEQ ID NO:2016:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2016: 26
GCGCGGCCGT CBTGGCGGCG TCGGGC

(2) INFORMATION FOR SEQ ID NO:2017:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2017:
 GCGCGGCCGT CBTGGCGGCG TCGGG 25

(2) INFORMATION FOR SEQ ID NO:2018:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2018:
 GCGCGGCCGT CBTGGCGGCG TCGG 24

(2) INFORMATION FOR SEQ ID NO:2019:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2019:
 GCGCGGCCGT CBTGGCGGCG TCG 23

(2) INFORMATION FOR SEQ ID NO:2020:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2020:
 GCGCGGCCGT CBTGGCGGCG TC 22

(2) INFORMATION FOR SEQ ID NO:2021:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2021:
 GCGCGGCCGT CBTGGCGGCG T 21

(2) INFORMATION FOR SEQ ID NO:2022:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2022:
 GCGCGGCCGT CBTGGCGGCG 20

(2) INFORMATION FOR SEQ ID NO:2023:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2023:
 GCGCGGCCGT CBTGGCGGC 19

(2) INFORMATION FOR SEQ ID NO:2024:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2024:
GCGCGGCCGT CBTGGCGG 18

(2) INFORMATION FOR SEQ ID NO:2025:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2025:
GCGCGGCCGT CBTGGCG 17

(2) INFORMATION FOR SEQ ID NO:2026:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2026:
GCGCGGCCGT CBTGGC 16

(2) INFORMATION FOR SEQ ID NO:2027:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2027:
GCGCGGCCGT CBTGG 15

(2) INFORMATION FOR SEQ ID NO:2028:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2028:
GCGCGGCCGT CBTG 14

(2) INFORMATION FOR SEQ ID NO:2029:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2029:
GCGCGGCCGT CBT 13

(2) INFORMATION FOR SEQ ID NO:2030:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2030:
GCGCGGCCGT CB 12

(2) INFORMATION FOR SEQ ID NO:2031:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2031:
GCGCGGCCGT C 11

(2) INFORMATION FOR SEQ ID NO:2032:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2032:
 GCGCGGCCGT 10

(2) INFORMATION FOR SEQ ID NO:2033:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 30 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2033:
 CCGCGCCGTC BTGGCGCGCT CGGGCCGGGC 30

(2) INFORMATION FOR SEQ ID NO:2034:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 29 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2034:
 GCGGCCGTCTB TGGCGCGCTC GGGCCGGGC 29

(2) INFORMATION FOR SEQ ID NO:2035:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2035:
 CGGCCGTCBT GCGCGCTCG GGCCGGGC 28

(2) INFORMATION FOR SEQ ID NO:2036:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2036:
 GGCCGTCBTG GCGCGCTCGG GCCGGGC 27

(2) INFORMATION FOR SEQ ID NO:2037:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2037:
 GCCGTCBTGG CGGCTCGGG CCGGGC 26

(2) INFORMATION FOR SEQ ID NO:2038:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2038:
 CCGTCBTGGC GCGCTCGGGC CGGGC 25

(2) INFORMATION FOR SEQ ID NO:2039:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2039:

CGTCBTGGCG GCGTCGGGCC GGGC

24

(2) INFORMATION FOR SEQ ID NO:2040:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2040:

GTCBTGGCGG GCGTCGGGCC GGC

23

(2) INFORMATION FOR SEQ ID NO:2041:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2041:

TCBTGGCGGC GTCGGGCCG GC

22

(2) INFORMATION FOR SEQ ID NO:2042:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2042:

CBTGGCGCG TCGGGCCGG C

21

(2) INFORMATION FOR SEQ ID NO:2043:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2043:

BTGGCGCGT CGGGCCGGG

20

(2) INFORMATION FOR SEQ ID NO:2044:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2044:

TGGCGGCGTC GGGCCGGG

19

(2) INFORMATION FOR SEQ ID NO:2045:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2045:

GGCGGCGTCG GGCCGGG

18

(2) INFORMATION FOR SEQ ID NO:2046:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2046:

GCGGCGTCG GCCGGG

17

(2) INFORMATION FOR SEQ ID NO:2047:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2047:
 CGGCGTCGGG CCGGGC 16

(2) INFORMATION FOR SEQ ID NO:2048:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2048:
 GCGGTCGGGC CGGGC 15

(2) INFORMATION FOR SEQ ID NO:2049:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2049:
 GCGTCGGGCC GGGC 14

(2) INFORMATION FOR SEQ ID NO:2050:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2050:
 CGTCGGGCCG GGC 13

(2) INFORMATION FOR SEQ ID NO:2051:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2051:
 GTCGGGCCGG GC 12

(2) INFORMATION FOR SEQ ID NO:2052:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2052:
 TCGGGCCGGG C 11

(2) INFORMATION FOR SEQ ID NO:2053:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2053:
 CGGGCCGGGC 10

(2) INFORMATION FOR SEQ ID NO:2054:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2054:
 CCGCBGGCCB GGGCGGCCG CCGGCCGGGC CG 32

(2) INFORMATION FOR SEQ ID NO:2055:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2055:
CCGCBGGCCB GGGCGCGCCG CCGGCCGGGC C 31

(2) INFORMATION FOR SEQ ID NO:2056:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2056:
CCGCBGGCCB GGGCGCGCCG CCGGCCGGGC 30

(2) INFORMATION FOR SEQ ID NO:2057:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2057:
CCGCBGGCCB GGGCGCGCCG CCGGCCGGG 29

(2) INFORMATION FOR SEQ ID NO:2058:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2058:
CCGCBGGCCB GGGCGCGCCG CCGGCCGG 28

(2) INFORMATION FOR SEQ ID NO:2059:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2059:
CCGCBGGCCB GGGCGCGCCG CCGGCCG 27

(2) INFORMATION FOR SEQ ID NO:2060:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2060:
CCGCBGGCCB GGGCGCGCCG CCGGCC 26

(2) INFORMATION FOR SEQ ID NO:2061:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2061:
CCGCBGGCCB GGGCGCGCCG CCGGC 25

(2) INFORMATION FOR SEQ ID NO:2062:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2062: 24
 CCGCBGGCCB GGGCGCGCCG CCGG

(2) INFORMATION FOR SEQ ID NO:2063:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2063: 23
 CCGCBGGCCB GGGCGCGCCG CCG

(2) INFORMATION FOR SEQ ID NO:2064:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2064: 22
 CCGCBGGCCB GGGCGCGCCG CC

(2) INFORMATION FOR SEQ ID NO:2065:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2065: 21
 CCGCBGGCCB GGGCGCGCCG C

(2) INFORMATION FOR SEQ ID NO:2066:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2066: 20
 CCGCBGGCCB GGGCGCGCCG

(2) INFORMATION FOR SEQ ID NO:2067:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2067: 19
 CCGCBGGCCB GGGCGCGCC

(2) INFORMATION FOR SEQ ID NO:2068:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2068: 18
 CCGCBGGCCB GGGCGCGC

(2) INFORMATION FOR SEQ ID NO:2069:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2069: 17
 CCGCBGGCCB GGGCGCG

(2) INFORMATION FOR SEQ ID NO:2070:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2070:
CCGCBGGCCB GGGCGC 16

(2) INFORMATION FOR SEQ ID NO:2071:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2071:
CCGCBGGCCB GGGCG 15

(2) INFORMATION FOR SEQ ID NO:2072:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2072:
CCGCBGGCCB GGGC 14

(2) INFORMATION FOR SEQ ID NO:2073:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2073:
CCGCBGGCCB GGG 13

(2) INFORMATION FOR SEQ ID NO:2074:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2074:
CCGCBGGCCB GG 12

(2) INFORMATION FOR SEQ ID NO:2075:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2075:
CCGCBGGCCB G 11

(2) INFORMATION FOR SEQ ID NO:2076:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2076:
CCGCBGGCCB 10

(2) INFORMATION FOR SEQ ID NO:2077:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2077:
CCGCBGGGCC 9

(2) INFORMATION FOR SEQ ID NO:2078:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2078:
CGCBGGCCBG GCGCGCCGC CGGCCGGGCC G 31

(2) INFORMATION FOR SEQ ID NO:2079:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2079:
GCBGGCCBG GCGCGCCGC GCGCGGCCG 30

(2) INFORMATION FOR SEQ ID NO:2080:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2080:
CBGGCCBGG GCGCGCCGC GCCGGGCCG 29

(2) INFORMATION FOR SEQ ID NO:2081:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2081:
BGGCCBGGG GCGCGCCGC CCGGGCCG 28

(2) INFORMATION FOR SEQ ID NO:2082:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2082:
GGCCBGGGCG CGCCGCCGC CGGGCCG 27

(2) INFORMATION FOR SEQ ID NO:2083:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2083:
GCCBGGGCGC GCCCGGCC GGGCCG 26

(2) INFORMATION FOR SEQ ID NO:2084:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2084:
CCBGGGCGCG CCGCGGCC GGCCG 25

(2) INFORMATION FOR SEQ ID NO:2085:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2085:
 CBGGGCGCGC CGCCGCCCG GCGG 24

(2) INFORMATION FOR SEQ ID NO:2086:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2086:
 BGGGCGCGCC GCCGCCGGG CCG 23

(2) INFORMATION FOR SEQ ID NO:2087:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2087:
 GGGCGCGCCG CCGCCGGGC CG 22

(2) INFORMATION FOR SEQ ID NO:2088:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2088:
 GGCGCGCCGC CGCCGGGCC G 21

(2) INFORMATION FOR SEQ ID NO:2089:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2089:
 GCGCGCGCC GCCCGGCCG 20

(2) INFORMATION FOR SEQ ID NO:2090:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2090:
 CGCGCCGCCG GCCGGGCCG 19

(2) INFORMATION FOR SEQ ID NO:2091:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2091:
 GCGCCGCCG CCGGGCCG 18

(2) INFORMATION FOR SEQ ID NO:2092:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2092:
CGCCGCCGGC CGGGCCG 17

(2) INFORMATION FOR SEQ ID NO:2093:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2093:
GCCGCCGGCC GGGCCG 16

(2) INFORMATION FOR SEQ ID NO:2094:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2094:
CGCCCGCCG GCGCCG 15

(2) INFORMATION FOR SEQ ID NO:2095:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2095:
CGCCGGCCG GCGC 14

(2) INFORMATION FOR SEQ ID NO:2096:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2096:
GCCGGCCGG CCG 13

(2) INFORMATION FOR SEQ ID NO:2097:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2097:
CCGGCCGGGC CG 12

(2) INFORMATION FOR SEQ ID NO:2098:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2098:
CGGCCGGGC G 11

(2) INFORMATION FOR SEQ ID NO:2099:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2099:
GGCCGGGCCG 10

(2) INFORMATION FOR SEQ ID NO:2100:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2100:
 GGGCGCBGGC TCCGCB 16

(2) INFORMATION FOR SEQ ID NO:2101:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2101:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC GCCCG 46

(2) INFORMATION FOR SEQ ID NO:2102:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2102:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC GCCCG 45

(2) INFORMATION FOR SEQ ID NO:2103:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 44 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2103:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC GCCC 44

(2) INFORMATION FOR SEQ ID NO:2104:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2104:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC GCC 43

(2) INFORMATION FOR SEQ ID NO:2105:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2105:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC GC 42

(2) INFORMATION FOR SEQ ID NO:2106:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2106:
 GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCGCCCC G 41

(2) INFORMATION FOR SEQ ID NO:2107:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2107:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCCG

40

(2) INFORMATION FOR SEQ ID NO:2108:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2108:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCC

39

(2) INFORMATION FOR SEQ ID NO:2109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2109:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGCC

38

(2) INFORMATION FOR SEQ ID NO:2110:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2110:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC

37

(2) INFORMATION FOR SEQ ID NO:2111:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2111:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCG

36

(2) INFORMATION FOR SEQ ID NO:2112:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2112:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCC

35

(2) INFORMATION FOR SEQ ID NO:2113:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2113:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCC

34

(2) INFORMATION FOR SEQ ID NO:2114:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2114:

GGGCCCCTGG CTCGGCCCCG CGGCCCGGCT TGC

33

(2) INFORMATION FOR SEQ ID NO:2115:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2115:
GGGCCCTGG CTCGGCCCCG CGGCCCGGCT TG 32

(2) INFORMATION FOR SEQ ID NO:2116:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2116:
GGGCCCTGG CTCGGCCCCG CGGCCCGGCT T 31

(2) INFORMATION FOR SEQ ID NO:2117:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2117:
GGGCCCTGG CTCGGCCCCG CGGCCCGGCT 30

(2) INFORMATION FOR SEQ ID NO:2118:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2118:
GGGCCCTGG CTCGGCCCCG CGGCCCGGC 29

(2) INFORMATION FOR SEQ ID NO:2119:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2119:
GGGCCCTGG CTCGGCCCCG CGGCCCGG 28

(2) INFORMATION FOR SEQ ID NO:2120:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2120:
GGGCCCTGG CTCGGCCCCG CGGCCCG 27

(2) INFORMATION FOR SEQ ID NO:2121:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2121:
GGGCCCTGG CTCGGCCCCG CGGCC 26

(2) INFORMATION FOR SEQ ID NO:2122:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2122:
GGGCCCTGG CTCGGCCCCG CGGCC 25

(2) INFORMATION FOR SEQ ID NO:2123:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2123:
GGGCCCTGG CTCGGCCCCG CGGC 24

(2) INFORMATION FOR SEQ ID NO:2124:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2124:
GGGCCCTGG CTCGGCCCCG CGG 23

(2) INFORMATION FOR SEQ ID NO:2125:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2125:
GGGCCCTGG CTCGGCCCCG CG 22

(2) INFORMATION FOR SEQ ID NO:2126:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2126:
GGGCCCTGG CTCGGCCCCG C 21

(2) INFORMATION FOR SEQ ID NO:2127:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2127:
GGGCCCTGG CTCGGCCCCG 20

(2) INFORMATION FOR SEQ ID NO:2128:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2128:
GGGCCCTGG CTCGGCCCC 19

(2) INFORMATION FOR SEQ ID NO:2129:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2129:
GGGCCCTGG CTCGGCCC 18

(2) INFORMATION FOR SEQ ID NO:2130:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2130:
GGGCCCCCTGG CTCGGCC 17

(2) INFORMATION FOR SEQ ID NO:2131:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2131:
GGGCCCCCTGG CTCGGC 16

(2) INFORMATION FOR SEQ ID NO:2132:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2132:
GGGCCCCCTGG CTCGG 15

(2) INFORMATION FOR SEQ ID NO:2133:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2133:
GGGCCCCCTGG CTCG 14

(2) INFORMATION FOR SEQ ID NO:2134:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2134:
GGGCCCCCTGG CTC 13

(2) INFORMATION FOR SEQ ID NO:2135:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2135:
GGGCCCCCTGG CT 12

(2) INFORMATION FOR SEQ ID NO:2136:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 45 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2136:
GGCCCCCTGGC TCGGCCCCGC GGCCCGGCTT GCCCGCCCGG CCCGG 45

(2) INFORMATION FOR SEQ ID NO:2137:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2137:
GCCCCCTGGCT CGGCCCCGCG GCCCGGCTTG CCCGCCCGGC CCGG 44

(2) INFORMATION FOR SEQ ID NO:2138:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 43 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2138:
 CCCCTGGCTC GGCCCCGCGG CCCGGCTTGC CCGCCCGGCC CGG 43

(2) INFORMATION FOR SEQ ID NO:2139:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 42 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2139:
 CCCTGGCTCG GCCCGCGGCG CCGGCTTGCC CGCCCGGCCG GG 42

(2) INFORMATION FOR SEQ ID NO:2140:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 41 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2140:
 CCTGGCTCGG CCCCGCGGCC CGGCTTGCCC GCCCGGCCCG G 41

(2) INFORMATION FOR SEQ ID NO:2141:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 40 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2141:
 CTGGCTCGGC CCCCGCGGCC GGCTTGCCCC CCCGGCCCGG 40

(2) INFORMATION FOR SEQ ID NO:2142:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 39 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2142:
 TGGCTCGGCC CCGCGGCCCG GCTTGCCCGC CCGGCCCGG 39

(2) INFORMATION FOR SEQ ID NO:2143:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2143:
 GGCTCGGCC CGCGGCCCGG CTTGCCCGCC CGGCCCGG 38

(2) INFORMATION FOR SEQ ID NO:2144:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 37 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2144:
 GCTCGGCCCC GCGGCCCGGC TTGCCCGCCC GGCCCCG 37

(2) INFORMATION FOR SEQ ID NO:2145:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2145:
CTCGGCCCCG CGGCCCGGCT TGCCGCCCCG GCCCGG 36

(2) INFORMATION FOR SEQ ID NO:2146:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2146:
TCGGCCCCGC GGCCCGGCTT GCCCGCCCCG CCCGG 35

(2) INFORMATION FOR SEQ ID NO:2147:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2147:
CGGCCCCGCG GCCCGGCTTG CCCGCCCGGC CCGG 34

(2) INFORMATION FOR SEQ ID NO:2148:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2148:
GGCCCCGCGG CCCGGCTTGC CCGCCCGGCC CGG 33

(2) INFORMATION FOR SEQ ID NO:2149:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2149:
GCCCCGCGGC CCGGCTTGCC CGCCCGCCCC GG 32

(2) INFORMATION FOR SEQ ID NO:2150:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2150:
CCCCGCGGCC CGGCTTGCCC GCCCGCCCCG G 31

(2) INFORMATION FOR SEQ ID NO:2151:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2151:
CCCGCGCCCC GGCTTGCCCC CCCGGCCCCG 30

(2) INFORMATION FOR SEQ ID NO:2152:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2152:
CCGCGGCCCG GCTTGCCCCG CCGGCCCGG 29

(2) INFORMATION FOR SEQ ID NO:2153:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2153:
 CGCGGCCCGG CTTGCCCGCC CGGCCCGG 28

(2) INFORMATION FOR SEQ ID NO:2154:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2154:
 CGCGGCCCGC TTGCCCGCCC GGCCCGG 27

(2) INFORMATION FOR SEQ ID NO:2155:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2155:
 CGGCCCGGCT TGCCCGCCCG GCCCGG 26

(2) INFORMATION FOR SEQ ID NO:2156:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2156:
 GGCCCGGCTT GCCCGCCCGG CCCGG 25

(2) INFORMATION FOR SEQ ID NO:2157:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2157:
 GCCCGGCTTG CCCGCCCGGC CCGG 24

(2) INFORMATION FOR SEQ ID NO:2158:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2158:
 CCCGGCTTGC CCGCCCGGCC CGG 23

(2) INFORMATION FOR SEQ ID NO:2159:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2159:
 CCGGCTTGCC CGCCCGCCCC GG 22

(2) INFORMATION FOR SEQ ID NO:2160:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2160: 21
CGGCTTGCCC GCCGGCCCG G

(2) INFORMATION FOR SEQ ID NO:2161:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2161: 20
GGCTTGCCCG CCCGGCCCGG

(2) INFORMATION FOR SEQ ID NO:2162:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2162: 19
GCTTGCCCGC CCGGCCCGG

(2) INFORMATION FOR SEQ ID NO:2163:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2163: 18
CTTGCCCCCG CGGCCCG

(2) INFORMATION FOR SEQ ID NO:2164:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2164: 17
TTGCCCGCCC GGCCCGG

(2) INFORMATION FOR SEQ ID NO:2165:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2165: 16
TGCCCGCCCG GCCCGG

(2) INFORMATION FOR SEQ ID NO:2166:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2166: 15
GCCCGCCCGG CCCGG

(2) INFORMATION FOR SEQ ID NO:2167:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2167: 14
CCCGCCCGG CCGG

(2) INFORMATION FOR SEQ ID NO:2168:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2168:
 CCGCCCGGCC CGG 13

(2) INFORMATION FOR SEQ ID NO:2169:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2169:
 GCGCCGGCCC GG 12

(2) INFORMATION FOR SEQ ID NO:2170:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2170:
 GCCCGGCCCG G 11

(2) INFORMATION FOR SEQ ID NO:2171:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 36 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2171:
 GCGCGGGGCG GCGGCGCCTG GCTCGCCTBG GGCCCC 36

(2) INFORMATION FOR SEQ ID NO:2172:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2172:
 GCGCGGGGCG GCGGCGCCTG GCTCGCCTBG GGCCC 35

(2) INFORMATION FOR SEQ ID NO:2173:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2173:
 GCGCGGGGCG GCGGCGCCTG GCTCGCCTBG GGCC 34

(2) INFORMATION FOR SEQ ID NO:2174:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2174:
 GCGCGGGGCG GCGGCGCCTG GCTCGCCTBG GGC 33

(2) INFORMATION FOR SEQ ID NO:2175:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2175:

GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GG

32

(2) INFORMATION FOR SEQ ID NO:2176:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2176:

GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG G

31

(2) INFORMATION FOR SEQ ID NO:2177:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2177:

GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG

30

(2) INFORMATION FOR SEQ ID NO:2178:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2178:

GGCGGGGGCG GCGGCGCCTG GCTCGCCTB

29

(2) INFORMATION FOR SEQ ID NO:2179:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2179:

GGCGGGGGCG GCGGCGCCTG GCTCGCCT

28

(2) INFORMATION FOR SEQ ID NO:2180:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2180:

GGCGGGGGCG GCGGCGCCTG GCTCGCC

27

(2) INFORMATION FOR SEQ ID NO:2181:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2181:

GGCGGGGGCG GCGGCGCCTG GCTCGC

26

(2) INFORMATION FOR SEQ ID NO:2182:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2182:

GGCGGGGGCG GCGGCGCCTG GCTCG

25

(2) INFORMATION FOR SEQ ID NO:2183:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2183:
GGCGGGGGCG GCGGCGCCTG GCTC 24

(2) INFORMATION FOR SEQ ID NO:2184:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2184:
GGCGGGGGCG GCGGCGCCTG GCT 23

(2) INFORMATION FOR SEQ ID NO:2185:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2185:
GGCGGGGGCG GCGGCGCCTG GC 22

(2) INFORMATION FOR SEQ ID NO:2186:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2186:
GGCGGGGGCG GCGGCGCCTG G 21

(2) INFORMATION FOR SEQ ID NO:2187:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2187:
GGCGGGGGCG GCGGCGCCTG 20

(2) INFORMATION FOR SEQ ID NO:2188:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2188:
GGCGGGGGCG GCGGCGCCT 19

(2) INFORMATION FOR SEQ ID NO:2189:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2189:
GGCGGGGGCG GCGGCGCC 18

(2) INFORMATION FOR SEQ ID NO:2190:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2190:
GGCGGGGGCG GCGGCGC 17

(2) INFORMATION FOR SEQ ID NO:2191:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2191:
 GGCGGGGGCG GCGGCG 16

(2) INFORMATION FOR SEQ ID NO:2192:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2192:
 GGCGGGGGCG GCGGC 15

(2) INFORMATION FOR SEQ ID NO:2193:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2193:
 GGCGGGGGCG GCGG 14

(2) INFORMATION FOR SEQ ID NO:2194:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2194:
 GGCGGGGGCG GCG 13

(2) INFORMATION FOR SEQ ID NO:2195:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2195:
 GGCGGGGGCG GC 12

(2) INFORMATION FOR SEQ ID NO:2196:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2196:
 GGCGGGGGCG G 11

(2) INFORMATION FOR SEQ ID NO:2197:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2197:
 GCGGGGGCGG CGGCGCTGG CTCGCCTBGG GCCCC 35

(2) INFORMATION FOR SEQ ID NO:2198:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2198: 34
CGGGGGCGGC GCGCCTGGC TCGCCTBGGG CCCC

(2) INFORMATION FOR SEQ ID NO:2199:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2199: 33
GGGGGCGGCG GCGCCTGGCT CGCCTBGGGC CCC

(2) INFORMATION FOR SEQ ID NO:2200:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2200: 32
GGGGCGGCGG CGCCTGGCTC GCCTBGGGCC CC

(2) INFORMATION FOR SEQ ID NO:2201:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2201: 31
GGGCGGCGGC GCCTGGCTCG CCTBGGGCC C

(2) INFORMATION FOR SEQ ID NO:2202:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2202: 30
GGCGGCGGCG CCTGGCTCGC CTBGGGCCCC

(2) INFORMATION FOR SEQ ID NO:2203:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2203: 29
GCGGCGGCGC CTGGCTCGCC TBGGGCCCC

(2) INFORMATION FOR SEQ ID NO:2204:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2204: 28
CGGCGGCGCC TGGCTCGCCT BGGGCCCC

(2) INFORMATION FOR SEQ ID NO:2205:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2205: 27
GGCGGCGCCT GGCTCGCCTB GGGCCCC

(2) INFORMATION FOR SEQ ID NO:2206:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2206:
 GCGGCGCCTG GCTCGCCTBG GGCCCC 26

(2) INFORMATION FOR SEQ ID NO:2207:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2207:
 CGGCGCCTGG CTCGCCTBGG GCCCC 25

(2) INFORMATION FOR SEQ ID NO:2208:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2208:
 GGCGCCTGGC TCGCCTBGGG CCCC 24

(2) INFORMATION FOR SEQ ID NO:2209:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2209:
 GCGCCTGGCT CGCCTBGGGC CCC 23

(2) INFORMATION FOR SEQ ID NO:2210:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2210:
 CGCCTGGCTC GCCTBGGGCC CC 22

(2) INFORMATION FOR SEQ ID NO:2211:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2211:
 GCCTGGCTCG CCTBGGGCCC C 21

(2) INFORMATION FOR SEQ ID NO:2212:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2212:
 CCTGGCTCGC CTBGGGCCCC 20

(2) INFORMATION FOR SEQ ID NO:2213:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2213: 19
CTGGCTCGCC TBGGGCCCC

(2) INFORMATION FOR SEQ ID NO:2214:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2214: 18
TGGCTCGCCT BGGGCCCC

(2) INFORMATION FOR SEQ ID NO:2215:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2215: 17
GGCTCGCCTB GGGCCCC

(2) INFORMATION FOR SEQ ID NO:2216:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2216: 16
GCTCGCCTBG GGCCCC

(2) INFORMATION FOR SEQ ID NO:2217:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2217: 15
CTCGCCTBGG GCCCC

(2) INFORMATION FOR SEQ ID NO:2218:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2218: 14
TCGCCTBGGG CCCC

(2) INFORMATION FOR SEQ ID NO:2219:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2219: 13
CGCCTBGGGC CCC

(2) INFORMATION FOR SEQ ID NO:2220:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2220: 12
GCCTBGGGCC CC

(2) INFORMATION FOR SEQ ID NO:2221:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2221:
 CCTBGGGCCC C 11

(2) INFORMATION FOR SEQ ID NO:2222:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2222:
 CTBGGGCCCC 10

(2) INFORMATION FOR SEQ ID NO:2223:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2223:
 GGGTGGGCBC GCGGCC 17

(2) INFORMATION FOR SEQ ID NO:2224:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2224:
 GGTCGGCGBB GBGCTCGTCG TGGC 24

(2) INFORMATION FOR SEQ ID NO:2225:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2225:
 GGTCGGCGBB GBGCTCGTCG TGG 23

(2) INFORMATION FOR SEQ ID NO:2226:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2226:
 GGTCGGCGBB GBGCTCGTCG TG 22

(2) INFORMATION FOR SEQ ID NO:2227:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2227:
 GGTCGGCGBB GBGCTCGTCG T 21

(2) INFORMATION FOR SEQ ID NO:2228:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2228:
GGTCGGCGBB GBGCTCGTCG 20

(2) INFORMATION FOR SEQ ID NO:2229:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2229:
GGTCGGCGBB GBGCTCGTC 19

(2) INFORMATION FOR SEQ ID NO:2230:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2230:
GGTCGGCGBB GBGCTCGT 18

(2) INFORMATION FOR SEQ ID NO:2231:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2231:
GGTCGGCGBB GBGCTCG 17

(2) INFORMATION FOR SEQ ID NO:2232:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2232:
GGTCGGCGBB GBGCTC 16

(2) INFORMATION FOR SEQ ID NO:2233:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2233:
GGTCGGCGBB GBGCT 15

(2) INFORMATION FOR SEQ ID NO:2234:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2234:
GGTCGGCGBB GBGC 14

(2) INFORMATION FOR SEQ ID NO:2235:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2235:
GGTCGGCGBB GBG 13

(2) INFORMATION FOR SEQ ID NO:2236:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2236: 12
 GGTCGGCGBB GB

(2) INFORMATION FOR SEQ ID NO:2237:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2237: 11
 GGTCGGCGBB G

(2) INFORMATION FOR SEQ ID NO:2238:
 (i) SEQUENCE CHARACTERISTICS: 1
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2238: 23
 GTCGGCGBBG BGCTCGTCGT GGC

(2) INFORMATION FOR SEQ ID NO:2239:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 22 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2239: 22
 TCGGCGBBGB GCTCGTCGTG GC

(2) INFORMATION FOR SEQ ID NO:2240:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2240: 21
 CGGCGBBGBG CTCGTCGTGG C

(2) INFORMATION FOR SEQ ID NO:2241:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2241: 20
 GGCGBBGBGC TCGTCGTGGC

(2) INFORMATION FOR SEQ ID NO:2242:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2242: 19
 GCGBBGBGCT CGTCGTGGC

(2) INFORMATION FOR SEQ ID NO:2243:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2243:

CGBBGBGCTC GTCGTGGC

18

(2) INFORMATION FOR SEQ ID NO:2244:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2244:

GBBGBGCTCG TCGTGGC

17

(2) INFORMATION FOR SEQ ID NO:2245:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2245:

BBBGBGCTCGT CGTGGC

16

(2) INFORMATION FOR SEQ ID NO:2246:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2246:

BGBGCTCGTC GTGGC

15

(2) INFORMATION FOR SEQ ID NO:2247:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2247:

GBGCTCGTCG TGGC

14

(2) INFORMATION FOR SEQ ID NO:2248:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2248:

BGCTCGTCGT GGC

13

(2) INFORMATION FOR SEQ ID NO:2249:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2249:

GCTCGTCGTG GC

12

(2) INFORMATION FOR SEQ ID NO:2250:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2250:

CTCGTCGTGG C

11

(2) INFORMATION FOR SEQ ID NO:2251:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2251:
 TCGTCGTGGC 10

(2) INFORMATION FOR SEQ ID NO:2252:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2252:
 GGGGCCCCGC GCCGCCCGCC 20

(2) INFORMATION FOR SEQ ID NO:2253:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2253:
 GGGGCCCCGC GCCGCCCGC 19

(2) INFORMATION FOR SEQ ID NO:2254:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2254:
 GGGGCCCCGC GCCGCCCG 18

(2) INFORMATION FOR SEQ ID NO:2255:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2255:
 GGGGCCCCGC GCCGCC 17

(2) INFORMATION FOR SEQ ID NO:2256:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2256:
 GGGGCCCCGC GCCGCC 16

(2) INFORMATION FOR SEQ ID NO:2257:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2257:
 GGGGCCCCGC GCCGC 15

(2) INFORMATION FOR SEQ ID NO:2258:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2258:
 GGGGCCCCGC GCCG 14

(2) INFORMATION FOR SEQ ID NO:2259:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2259:
GGGGCCCCGC GCC 13

(2) INFORMATION FOR SEQ ID NO:2260:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2260:
GGGGCCCCGC GC 12

(2) INFORMATION FOR SEQ ID NO:2261:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2261:
GGGGCCCCGC CCGCCGCC 19

(2) INFORMATION FOR SEQ ID NO:2262:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2262:
GGCCCCGCGC CGCCGCC 18

(2) INFORMATION FOR SEQ ID NO:2263:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2263:
GCCCCGCGCC GCCGCC 17

(2) INFORMATION FOR SEQ ID NO:2264:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2264:
CCCCGCGCC GCCGCC 16

(2) INFORMATION FOR SEQ ID NO:2265:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2265:
CCCGCGCCGC CCGCC 15

(2) INFORMATION FOR SEQ ID NO:2266:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2266:
 CCGCGCCGCC CGCC 14

(2) INFORMATION FOR SEQ ID NO:2267:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2267:
 CGCGCCGCC GCC 13

(2) INFORMATION FOR SEQ ID NO:2268:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2268:
 GCGCCGCCCG CC 12

(2) INFORMATION FOR SEQ ID NO:2269:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2269:
 CGCCGCCCGC C 11

(2) INFORMATION FOR SEQ ID NO:2270:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2270:
 GCCGCCCGCC 10

(2) INFORMATION FOR SEQ ID NO:2271:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2271:
 GGGGCGCGCG GGGCCGCCG G 21

(2) INFORMATION FOR SEQ ID NO:2272:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2272:
 GGCGGGGBGC GGCBBGGCCC GGGCCC 26

(2) INFORMATION FOR SEQ ID NO:2273:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2273:
 GGCGCGTCGC CGTCGCCCB GTCGGGCTCG CGC 33

(2) INFORMATION FOR SEQ ID NO:2274:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2274:
 GCGCGGGCBB CBGCGBGCCG GGCGCG 26

(2) INFORMATION FOR SEQ ID NO:2275:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2275:
 GCGCBCGGGC CCBCTGCGC GGGC 24

(2) INFORMATION FOR SEQ ID NO:2276:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2276:
 GGGCGGGGTG GGCTGCCCTG CGGCCGCC 28

(2) INFORMATION FOR SEQ ID NO:2277:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2277:
 GGGCTGCTGC GCGCGGGCTC CGGCGA 26

(2) INFORMATION FOR SEQ ID NO:2278:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2278:
 CTCCCGGGCG GGGCCGGGCG CGGGG 25

(2) INFORMATION FOR SEQ ID NO:2279:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2279:
 GGGCTGCCGC GGTCCGGGCC CCTCTGCCG GCG 33

(2) INFORMATION FOR SEQ ID NO:2280:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2280:
 GCGCTCGCGC CGTGCCCG 19

(2) INFORMATION FOR SEQ ID NO:2281:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2281:
 GCGCCGCTTG GCCTTGTCGC GGC 23

(2) INFORMATION FOR SEQ ID NO:2282:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2282:
 GCTGCTCCBC GCGCTGG 17

(2) INFORMATION FOR SEQ ID NO:2283:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2283:
 GCCGGBGGCC GGCCBGGTCC CGCG 24

(2) INFORMATION FOR SEQ ID NO:2284:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 31 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2284:
 CCCGGCGGCC GGCBBGBBGG GCGGGCTGGG C 31

(2) INFORMATION FOR SEQ ID NO:2285:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2285:
 GTCTCTCCCG CCCCGGCCGC GCG 23

(2) INFORMATION FOR SEQ ID NO:2286:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2286:
 GGGCGTCCGC TCCGGGCCGT CGGG 24

(2) INFORMATION FOR SEQ ID NO:2287:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2287:
 GCGGGCACGC GCGGCTCTG GCGTCGGC 28

(2) INFORMATION FOR SEQ ID NO:2288:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 681 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2288:
 GGTGBCBTTG BGCBTGTCGG CGCGGTCCCG TTBBGBGTGG GCCCGCCAGC CCAGCCACTC 60
 CACTTGGGGG CGGGTGGCCA GCACGAACAG CACCCAGAGG AAGGGGGGCG GCCCAGAAGG 120
 GCAGCCCGCA GGCCAGGATC AGGTCTGCTG CGGCCGAGA TAATGGCATT CACCACGCG 180

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2295:
 GGCCCAGCGC ACGCCGCGCA TCCGGCCC 28

(2) INFORMATION FOR SEQ ID NO:2296:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2296:
 GGGTTCTGAC CTGCAGCCCC C 21

(2) INFORMATION FOR SEQ ID NO:2297:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2297:
 GTCTCCTTGG CATTCCTGGG CCC 23

(2) INFORMATION FOR SEQ ID NO:2298:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2298:
 CAGTCACTCC TCTCCCTGCC CCC 23

(2) INFORMATION FOR SEQ ID NO:2299:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2299:
 CTTGCTGGGG CAGGGACGG 19

(2) INFORMATION FOR SEQ ID NO:2300:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2300:
 GGTGBCBTG BGCBTGTCGG CGC 23

(2) INFORMATION FOR SEQ ID NO:2301:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2301:
 GGTCCCGTTB BGBTGCGCC C 21

(2) INFORMATION FOR SEQ ID NO:2302:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2302:
 GCCAGCCCAG CCACTCCACT TGGGGGC 27

(2) INFORMATION FOR SEQ ID NO:2303:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2303:
 GGGTGGCCAG CACGAACAGC ACCCAGAGGA AGGGGGGC 38

(2) INFORMATION FOR SEQ ID NO:2304:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 46 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2304:
 GGCCCAGAAG GGCCAGCCGC AGGCCAGGAT CAGGTCTGCT GCGGCC 46

(2) INFORMATION FOR SEQ ID NO:2305:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 26 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2305:
 GGAGATAATG GCATTCACCA CGCGGC 26

(2) INFORMATION FOR SEQ ID NO:2306:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2306:
 GGCCCAGCGC ACGCCGCGCA TCCGGCCC 28

(2) INFORMATION FOR SEQ ID NO:2307:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2307:
 GGGTTCTGAC CTGCAGCCCC C 21

(2) INFORMATION FOR SEQ ID NO:2308:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2308:
 GTCTCCTTGG CATTCCTGGG CCC 23

(2) INFORMATION FOR SEQ ID NO:2309:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2309:
 CAGTCACTCC TCTCCCTGCC CCC 23

(2) INFORMATION FOR SEQ ID NO:2310:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2310:
CTTGCTGGGG CAGGGACGG 19

(2) INFORMATION FOR SEQ ID NO:2311:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2311:
CCGTGTTGTC BGTGGTGCTG 20

(2) INFORMATION FOR SEQ ID NO:2312:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2312:
CCCGTTTGBG GTBTGGC 17

(2) INFORMATION FOR SEQ ID NO:2313:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2313:
GCTCCBCCBB TTCCCTTTTC TCC 23

(2) INFORMATION FOR SEQ ID NO:2314:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2314:
TTGTTTTCCG TTTCTCTTG 19

(2) INFORMATION FOR SEQ ID NO:2315:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2315:
CCGTCTGTGG TT 12

(2) INFORMATION FOR SEQ ID NO:2316:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2316:
CCCGGCCCCG CCTCGTGCC 19

(2) INFORMATION FOR SEQ ID NO:2317:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2317:
CGTCCBTGCC GCGGGCCC 18

(2) INFORMATION FOR SEQ ID NO:2318:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2318:
 GCCCCGCTGC TTGGGCTGCT CTGCCGGG 28

(2) INFORMATION FOR SEQ ID NO:2319:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2319:
 TCTGTGCTCC TCTCGCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:2320:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2320:
 TGGTGGGGTG GGTCTTGGTG G 21

(2) INFORMATION FOR SEQ ID NO:2321:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2321:
 CTGTCCCTGG TCCTGTG 17

(2) INFORMATION FOR SEQ ID NO:2322:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2322:
 GGTCCCGCTT CTTC 14

(2) INFORMATION FOR SEQ ID NO:2323:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2323:
 GGGGTGTTG TTGGTCTGG 19

(2) INFORMATION FOR SEQ ID NO:2324:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2324:
 TGTCTCTTT CTGC 14

(2) INFORMATION FOR SEQ ID NO:2325:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2325:
GCCTCGGGCC TCCC 14

(2) INFORMATION FOR SEQ ID NO:2326:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2326:
GGCTGGGGTC TCGCT 15

(2) INFORMATION FOR SEQ ID NO:2327:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2327:
GGCCGGGGGT CGGTGGGTCC GCTG 24

(2) INFORMATION FOR SEQ ID NO:2328:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2328:
GGGCTGGGGT GCTGGCTTGG GG 22

(2) INFORMATION FOR SEQ ID NO:2329:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2329:
GGGGCTGGGG CCTGGGCC 18

(2) INFORMATION FOR SEQ ID NO:2330:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2330:
GCCTGGGTGG GCTTGGGGC 20

(2) INFORMATION FOR SEQ ID NO:2331:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2331:
GCTGGGTCTG TGCTGTTGCC 20

(2) INFORMATION FOR SEQ ID NO:2332:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2332:
GTTGTGTGGG GGGCC 15

(2) INFORMATION FOR SEQ ID NO:2333:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2333:
 GCTGGGTCGG GGGCCTCTG GGCTGTC 27

(2) INFORMATION FOR SEQ ID NO:2334:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2334:
 CCCCCGGGGC CCCC 14

(2) INFORMATION FOR SEQ ID NO:2335:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2335:
 TGGCTCCCCC CTCC 14

(2) INFORMATION FOR SEQ ID NO:2336:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2336:
 GCTCCCCCCT TTCC 14

(2) INFORMATION FOR SEQ ID NO:2337:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2337:
 CGGACGAAGA CAGAGA 16

(2) INFORMATION FOR SEQ ID NO:2338:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2338:
 GGCTTTGTGG GCTC 14

(2) INFORMATION FOR SEQ ID NO:2339:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2339:
 GCCTGCTCTC CCCC 14

(2) INFORMATION FOR SEQ ID NO:2340:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2340:

CCCGGCCCGG CCBGGBBCC

19

(2) INFORMATION FOR SEQ ID NO:2341:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2341:

CCCGGCCCGG CCBG

15

(2) INFORMATION FOR SEQ ID NO:2342:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2342:

CCCGGCCCGG CCBGGBBCC

19

(2) INFORMATION FOR SEQ ID NO:2343:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2343:

CCCGGCCCGG CCBG

15

(2) INFORMATION FOR SEQ ID NO:2344:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2344:

CCCGBCCCCG CCTCBBG

17

(2) INFORMATION FOR SEQ ID NO:2345:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2345:

CCCGBCCCCG CCTC

14

(2) INFORMATION FOR SEQ ID NO:2346:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2346:

CCGGCCCCG CTC

13

(2) INFORMATION FOR SEQ ID NO:2347:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2347:

CCGGBBCCCG CBTBGTGCC

19

(2) INFORMATION FOR SEQ ID NO:2348:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2348:
 CCCGCBTBGT GCC 13

(2) INFORMATION FOR SEQ ID NO:2349:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2349:
 CCCGGBCCCB CCBGTGCC 19

(2) INFORMATION FOR SEQ ID NO:2350:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2350:
 CBGBBCCCGC CTCGTGCC 18

(2) INFORMATION FOR SEQ ID NO:2351:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2351:
 CCCGCCTCGT GCC 13

(2) INFORMATION FOR SEQ ID NO:2352:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2352:
 CCGGBCCCGC CTCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:2353:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2353:
 CCGGCCCCGC CBCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:2354:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2354:
 CCCGBCCCCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:2355:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2355:
 CCCGGCCBCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:2356:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2356:
 CCCGGCCCBG CCTBG 15

(2) INFORMATION FOR SEQ ID NO:2357:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2357:
 CCCGGCBCBG BCTCGTBCC 19

(2) INFORMATION FOR SEQ ID NO:2358:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2358:
 CCCGGCCCCG CCBCG 15

(2) INFORMATION FOR SEQ ID NO:2359:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2359:
 CCCGGCCCCG CCBCG 15

(2) INFORMATION FOR SEQ ID NO:2360:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2360:
 TCCBTGCCGC GGGC 14

(2) INFORMATION FOR SEQ ID NO:2361:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2361:
 TCCBTGCCBC GGGCC 15

(2) INFORMATION FOR SEQ ID NO:2362:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2362:
 TCCBTGCCBC GGGCC 15

(2) INFORMATION FOR SEQ ID NO:2363:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2363:
TCCBTGCCBC BGGCC 15

(2) INFORMATION FOR SEQ ID NO:2364:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2364:
GTCCBTGBCG CGG 13

(2) INFORMATION FOR SEQ ID NO:2365:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2365:
TCCBTGBCGC GGG 13

(2) INFORMATION FOR SEQ ID NO:2366:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2366:
TCTGBGCTCC TCTBBCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:2367:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2367:
CTGTGCBCTT BBCBCCTGGG 20

(2) INFORMATION FOR SEQ ID NO:2368:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2368:
TGTGTTCCBC TBGBCTGGG 19

(2) INFORMATION FOR SEQ ID NO:2369:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2369:
TCTGTBCTCB BCTBCCTG 19

(2) INFORMATION FOR SEQ ID NO:2370:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2370:
TGCTCCTCBC BBCTGGG 17

(2) INFORMATION FOR SEQ ID NO:2371:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2371:
CTCCTCTBGC CTGG 14

(2) INFORMATION FOR SEQ ID NO:2372:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2372:
GTGCTCCBBT CBBCTGGG 18

(2) INFORMATION FOR SEQ ID NO:2373:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2373:
GTGCBCCBBT CBCCTGGG 18

(2) INFORMATION FOR SEQ ID NO:2374:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2374:
TCTGTGCBC TCTBGBCT 18

(2) INFORMATION FOR SEQ ID NO:2375:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2375:
TBBTCCTBBC BCCTGG 16

(2) INFORMATION FOR SEQ ID NO:2376:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2376:
TGTGCTBBTC BCBCBTGGG 19

(2) INFORMATION FOR SEQ ID NO:2377:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2377:
GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:2378:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2378:
CTGTGCBCCCT CTC 13

(2) INFORMATION FOR SEQ ID NO:2379:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2379:
CBGTGCBCCB CTCBCTG 18

(2) INFORMATION FOR SEQ ID NO:2380:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2380:
GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:2381:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2381:
CBCCTCTCBC CTGGG 15

(2) INFORMATION FOR SEQ ID NO:2382:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2382:
CCTCTCBCCT GGG 13

(2) INFORMATION FOR SEQ ID NO:2383:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2383:
GCTCCBCTCG CCT 13

(2) INFORMATION FOR SEQ ID NO:2384:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2384:
TGCTCCTCBC GCC 13

(2) INFORMATION FOR SEQ ID NO:2385:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2385:
GTTGTTGBTC TGG 13

(2) INFORMATION FOR SEQ ID NO:2386:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2386:
 GGTGGBBBTT GGTCTTGG 18

(2) INFORMATION FOR SEQ ID NO:2387:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2387:
 GGTGTGTGTT GBTCTG 16

(2) INFORMATION FOR SEQ ID NO:2388:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2388:
 GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:2389:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2389:
 GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:2390:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2390:
 TTGTTGTBGB TCTGG 15

(2) INFORMATION FOR SEQ ID NO:2391:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2391:
 GGGTBGBBGB GTCCGCTG 18

(2) INFORMATION FOR SEQ ID NO:2392:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2392:
 GGGTCBGBGG BTCBGCTG 18

(2) INFORMATION FOR SEQ ID NO:2393:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2393:
GGGTBGGTGG GTC 13

(2) INFORMATION FOR SEQ ID NO:2394:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2394:
GGGTCGGBGG GTCBGC 16

(2) INFORMATION FOR SEQ ID NO:2395:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2395:
CCTGGGTGGG CTT 13

(2) INFORMATION FOR SEQ ID NO:2396:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2396:
GGGTGGGCTT GGG 13

(2) INFORMATION FOR SEQ ID NO:2397:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2397:
CCTGGGTGGG BBTGGG 16

(2) INFORMATION FOR SEQ ID NO:2398:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2398:
CCTGGBTGGG CBTGGG 16

(2) INFORMATION FOR SEQ ID NO:2399:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2399:
GCCTGBGTGB BCTTGGG 17

(2) INFORMATION FOR SEQ ID NO:2400:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2400:
CCCAVGCCV CCCAGGC 17

(2) INFORMATION FOR SEQ ID NO:2401:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2401:
 AGCCCACCCA GGC 13

(2) INFORMATION FOR SEQ ID NO:2402:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2402:
 BCCTGGGTGG GCTB 14

(2) INFORMATION FOR SEQ ID NO:2403:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2403:
 GGTGGGCTTG GG 12

(2) INFORMATION FOR SEQ ID NO:2404:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2404:
 CCBGGGTGGG CTTGGG 16

(2) INFORMATION FOR SEQ ID NO:2405:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2405:
 CTGGGTGGGB BTGGG 15

(2) INFORMATION FOR SEQ ID NO:2406:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2406:
 CCBGGGTGGG CTTGG 15

(2) INFORMATION FOR SEQ ID NO:2407:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2407:
 GGGTGGGCTT GG 12

(2) INFORMATION FOR SEQ ID NO:2408:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2408:

(2) INFORMATION FOR SEQ ID NO:2409:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7800 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2409:

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CCGCGCCTCT	CTCCTCTCCC	CGTGGCCCTG	TCGGGCGGGT	CCTGCCGCTC	TGCTCCTTTT	5640
TCTTTTGCTG	TCTTGTCTTC	CCGTCTCTGC	TTTGTCTGTC	CTCCCGCTCT	CCTCCCACTG	5700
CTTCTCCCGG	GGGCTTCCCG	GGCTTCCGGT	GGCCGGTGTG	CCGGGCTCCG	GCGCGCGCGC	5760
GGCTTCCGGT	GCGGGTGGGT	GCGCGGGGCT	GCCGGGTCGG	GCGCGCGCCT	GGGCCCTTGT	5820
GCTGTCTTTT	GCTTGTTCGG	TTCTGGCTGC	TCCGGTCTGT	GTTGTGGTTG	TTTTGTTTCT	5880
TCTTGGGTGT	GGGCCCTTGG	GTTTGTGGCT	TGGGCCCTTT	GGGGCCTTGG	CTTCTGGCTC	5940
GTCTGTCTCT	CCCGTCTCCT	CCCACTGCTT	CTCCCGGGGG	CTTCCCGGGC	TTCCGGGTGGC	6000
CGGTGTCCCG	GGCTCCGGCG	CGGCGGCGGC	TTCCGGCTGCG	GTTGGGTGGC	GCGGGCTGCC	6060
GGGTCCGCGC	GGCGCTGGG	CCCTTGTGCT	GCTTTTGTCT	TGTTCCGTTT	TGGCTGCTCC	6120
GGTCTGTGTT	GTGGTTGTTT	TGTTTCTTCT	TGGGTGTGGG	CCTTGGCGGT	TTGGCTGTGG	6180
GCCCTTTGGG	GCCTTGGGCT	CTGGCTCCAT	CCACATGATT	GCTTAGATTT	GTGCTGTATC	6240
TCTCAGGATT	ATCACTGATT	ACACATCCAA	CCAGTGCCAG	CCAAAAGGAT	GCCCTGAGGC	6300
AAAGGGTTTC	CATCTTGAGG	CAAATTTGAG	GACBTCCBCB	TGBTTGCTTB	GBTTTGTGCT	6360
GTBTCTCTCB	GGBTBTBCB	TGBTTBCBCB	TCCBBCCBGT	GCCBGCBBB	BGGBTGCCCT	6420
GBGGCBBBGG	GTTTCCBTCT	TGBGGCBBBT	TGBGGGBGGG	CTBBGTTGTT	CCBCTCBCT	6480
BCCBCGTTGC	CCBCCBCBGB	GGTCCBCBGB	BTGBCCGTGT	BGGCBGCTGC	CCBBBGGBCB	6540
BTTTGCCBBG	CTGGTTGCB	GBBCTGBTTG	GGTTCCGBGG	TGTTBGTGGB	GBTGTTTGGG	6600
GBGBGGTCTG	BGTCCBCCGG	GBGGBCGTTB	TCCBTTTCGB	BGCTBGGCGG	TBBBGGCCCTB	6660
CTBTCTGTBC	BCBBCCCCC	TCTGCBGCBG	BGTCTCTGTC	TGGCGCCTGG	GGCTCBGGGT	6720
CCGGGCTAAG	ATGATCCACA	TCACTACCAC	GTTGCCACCC	ACAGAGGTCA	CCACAATGAC	6780
CGTGATAGGA	GCTGCCAAA	GGACAATTTG	CCAGGCTGGT	TGCACGAACT	GATTGGGTTT	6840
CGAGGTGTTA	GTGGAGATGT	TTGGGGAGAG	GTCTGAGTCC	ACCGGGAGGA	CGTTATCCAT	6900
TTCAAGCTA	GGCGGTAAG	CCCTACTATC	TGTACACAAC	CCCCCTCTGC	AGCAGAGTCC	6960
TGTCGTGGCG	CCTGGGGCTC	AGGGTCCGTC	CTGTCTGGGC	GCCTGGGGCT	CTTCTTTTGT	7020
GGGCTCTTTG	GTGGCTGTGG	CTGTGGTCTC	TGTGGTTGCT	GCCCTGGGTC	TGGGGGTGTG	7080
GCCTTGGGGC	CGTCTCTGCG	CTCCTCTCTG	TGGGCCCCCG	GTGCBTTTGB	GCBTGTCCGC	7140
GCGGTCCCGT	TBBBGTGGG	CCCCGCCAGC	CAGCCACTCC	ACTTGGGGGC	GGGTGGCCAG	7200
CACGAACAGC	ACCCAGAGGA	AGGGGGGCGG	CCCAGAAGGG	CAGCCCGCAG	GCCAGGATCA	7260
GCTCTGCTGC	GGCCGAGAT	AATGGCATTC	ACCACGCGGC	GGCCAGCGC	ACGCCGCGCA	7320
TCCGGCCCGG	GTCTGACCT	GCAGCCCCCG	TCTCCTTGGC	ATTCTGGGC	CCCAGTCACT	7380
CCTCTCCCTG	CCCCCTTGC	TGGGGCAGGG	ACGGGGTGBC	BTTGBGCBTG	TCGGCGCGGT	7440
CCCGTTBBGB	GTGGGCCCCC	CAGCCAGGCC	ACTCCACTTG	GGGGCGGGTG	GCCAGCACGA	7500
ACAGCACCCA	GAGGAAGGGG	GGCGGCCCCG	AAGGGCAGCC	CGCAGGCCAG	GATCAGGTCT	7560
GCTGCGGCCG	GAGATAATGG	CATTACACAC	GCGGCGGCC	AGCGCACGCC	GCGCATCCGG	7620

CTCCTCTGTC	TCTGTGTCCT	TGCCCTGGCC	CTCTTCCCTC	TCCTGTCTCC	TGTCCCTGTG	3480
TTCCGCCCCG	CTTCCCTCTC	CTGACCTCCT	TTTCCTCCGC	TGGGTGGGGC	CCTGCCTGTT	3540
CTCTGCTCCC	TGGCTTGGGG	TTTCTTCTGT	GTGTCTTCTT	CCTCTGTGGG	CTGGCTTTCT	3600
CCCTCTTTTG	TCTTCTTGGG	TGCCCTTCTT	TCCTTTCTTG	GGTCTTGGT	GCTTGGGCTG	3660
GGGCGTCTTG	GGGTGCBGGG	CCCBTCTGCG	TGCGCCTGGG	CGCTGCTGTG	CGTCCGCTCG	3720
CTGGGGGGCC	GGGGTGGCTG	GGCCCTGCTT	GCCGACGAC	CCCGGGCCGA	CCCGAGGCTC	3780
GGGGGGCTGT	GTTCTGGCGC	TGGTGGGCTT	GGGCCCCCTT	GGGGGCTGGG	TTTCTGTGCT	3840
CGCCTGGGCG	CTGGCTGCTT	GGGGTGGCGG	CCCGGGGGGG	CGGGGGGGCG	CTGTTCTGTG	3900
GCCTGGGGGT	GCCTGTGGCT	GCCGGTTGCC	CCGGTTGGTG	GCGCCGTCCT	GCTGCCGGTC	3960
GTTGGCTGGG	TCCCCCGGCC	CGTTTCTGGG	GGTCCGCGTG	GGGTGCTCCG	GTTCTCTGTG	4020
CCGCTGCTGC	CTTGTCTTTC	CGGCCGTGGC	GGCGTGGTGG	TCCGCCCCCC	CTGGCCTTCT	4080
GCTCGGGGTC	TGGGTGGTTG	CCGGTGGCCT	TGGCGGCGGT	CTTCTTCTCG	GTGGCTCTGG	4140
GCCCGGCCCG	TCTCGGGCGT	CTCGTGTTCG	CTCTGTGCT	GTTCCGGCCG	CTCCTTCCTC	4200
TTCCGCCCCC	GCCGCTCCCC	GCCCGCTCGT	CGCCCTGGCC	CGGCCCTCCT	CTGGCCGCTG	4260
TCTCGGGCGG	CGGCCTTGGC	GCTCCGTTTG	GGGCTGCCTC	TGGCGCTTCC	GGCCCTCGGC	4320
CTGGGCGCTC	TCTTCCGCTT	GTGCTGGTGG	GCTCTGTTGG	CCCTCTCTGG	CCTCCGGTGT	4380
CCTGTGGTCC	CCCGGCTGGT	GGCCGGGCGG	GTTGGGCGGG	CGTGGGCGCC	GGCGGGTCTT	4440
CCGGGCTGCC	CTTCTCCGCC	GGGGGTCCCG	CGTCTCTGCT	GTTCCCTGGG	CTCTTCTGCC	4500
TCTCTCCTGG	GTGGGTGCTG	GGTGCCGGGG	TCTCCGGGCT	TGCCCCGCGC	TGCTGGGCGT	4560
TCTGCGGTCT	TGGGGTTGTC	TGTGGCCCCG	CTCGTGTCCG	CCTCCGTCCG	CCGTGCGCCG	4620
CCTCGTCCCC	TCCTGGGTGC	GCGGCGGGCT	GGTCTGGCG	TTTTGTCTCT	TCCTGGGCGT	4680
CTTGGGGTGC	BGGGCCCCBT	CTGCTGCGCC	TGGGCGCTGC	TGTGCGTCCG	TCTGCTGGGG	4740
GGCCGGGGTG	CGCCGCGGCT	GCTTGCCGCA	CGACCCGGAG	GCTCGGGGGG	4800	
CTGTGTTCTG	GCGCTGGTGG	GCTTGGGCCC	CTCTGGGGGC	TGGGTTTCTT	GCTGCGCCTG	4860
GGCGCTGGCG	TCTTGGGGTG	CGGGGCGGGG	GGGCGGGGGG	GCCGCTGTTC	GTGGGCGCTG	4920
GGGTGCCTGT	GGCTGCCGGT	TGCCCCGGTT	GGTGGCGCCG	TCCTGCTGCC	GGTCGTTGGC	4980
TGGGTCCCCC	CGCCCGCTTT	CTGGGGTCCG	CGTGGGGTGC	TCCGGTTCTT	CGTGCCGCTG	5040
CTGCCTTGTG	TTTCCGGCCG	TGGCGGCGTG	GTGGTCCGCC	CCCCCTGGCC	TTCTGCTCGG	5100
GGTCTGGCTG	GTTGCCGGTG	CCCTTGCGCG	CGTCTTCTT	CCTGGTGGCT	CTGGGCGCCG	5160
CCGGTCTCGG	GCGTCTCGTG	TTTCTCTTGT	TGCTGTTCCG	GCCGCTCCTT	CCTCTTCCGC	5220
CGCCGCGCGT	CCCCGCGCGT	TCGTGCGCCT	GGCCCGGCGT	CCTCCTGGCC	GCTGTCTCGG	5280
GCGGCGGCCT	TGGCGCTCCG	TTTGGGGCTG	CCTCTGGCGC	TTCCGGCCCT	CGGCCTGGGC	5340
GCTCTCTTCC	GCCTGTGCTG	GTGGCCCTCG	TGGGCCCCCT	CTGGCCCTCCG	GTGTCTCTGT	5400
GTCCCCCGGC	TGGTGGCGCG	GCCGGTTGGG	CGCGCGTGGG	GCCCGGCGGG	TCCTCCGGGC	5460
TGCCCTTCTC	CGCCGGGGGT	CCCGCGCTCC	TGCTGTTCCC	TGGGCTCTTC	TGCTCTCTCT	5520
CTGGGTGGGT	GCTGGGTGCC	GGGGTCTCCG	GGCTTGCCCC	GCGCTGCTGG	GCGTTCTCGG	5580
GTCTTGGGGT	TGCTGTGTCG	CCCGCTCGTG	TCGCCCTCCG	TCGCCCGTCG	CCGGCCTCGT	5640
CCCTCTCTGG	GTGCGCGGCG	GGCTGCTCCT	GGCGTTTTTG	TCCTTCTCTG	CTGCCCBGCT	5700
TTTTGBTCCT	CBCBTGCCGT	GGGGBGGBCB	BTGGCTGCCT	CCCCGGGGTT	TCTGCTGCTT	5760
GCTGCTTCTT	TCCCGTCTCC	CTTCTTCTCC	GTCTCCTTTT	TGCCCTCTTT	GGTTCCGTGT	5820
GTTTCTGGCC	TGCTTGGTGG	CGGCTTGTGC	GTTTCTCTCT	TCTTCTCTTG	GGTCTCCGCT	5880
TCTCGTCTGT	CCCTTCTCCT	TCTCTGTGCG	GCGGTTCCCT	CTCCGCGGTC	CTCCTGCCCT	5940
GTGCTGTTTG	CCTCGGGTGG	TGCGGGTCCC	GGTGTCTCCC	CGGCGGGGCC	GCTGGTTGCC	6000
TGGGCTGTGC	TGTTGGGGTG	TGGGGCGGCT	GGGTGGGGGG	TGTGGTGGGC	TCTTCTGTGG	6060
CCTGTGGGGC	GTTTGGGTGC	TCTGTGGGCG	TGTGCTGGGT	CTTGGGGGCT	CCTCCCTTGT	6120
GCTGGGTGCG	GCCTCCCCGC	CCCCCTTCTG	GCCCGGTGGC	CTGGCTCCTT	GTGGGCGGCT	6180
CTGGCTCTTG	CCCTGTCTCT	CTTCGCTCTG	TGGCTGCTGG	GCTGC	6225	

(2) INFORMATION FOR SEQ ID NO:2411:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7033 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2411:

CCTCCTTCTC	GGTCTGTCTG	CCBGBCBBBT	TGGGGBBGTG	BBCBGTTTTG	GBBCCBTGTT	60
TCCCBGTCTC	TGBGCTGTGG	CGCCCTGCTG	CTCTTTCTGC	TTCCCTTGGT	GGGTTGGGCC	120
GCTGGTTGTT	CTGGGGTTCT	TGCTGCCCTT	TCTGTCCCTG	TTTGCTGGTG	TCTGCGCCCC	180
CBBCBGBBGB	BGCBGBCBBB	TTTGGGGBGT	GBBCBGTTTT	GGBBCCBTGT	TTCTGTGCGC	240
CTCGGCCTGG	TCCCGGGGGT	CTCCTCTTGT	TGTTGCTTGC	GCCTCCTGCT	GGGGGTCCCT	300
CTGTTCTTGT	TTTGGGGGCG	GGCCCGGCGG	TTGTCTTGGT	TTGGGGGTTT	CCGTTGGGGT	360
TCTCCTGGCC	CGGGCCTTGC	CCGGCCGTGG	TCCCAGGCTT	GTTCTGTCTT	CCGTCTCGGC	420
TCTTCTGGGG	CCTTGCCTGG	TCTTGGGTGG	CBCCGTCCBG	TGTTGGTGGC	GTBCTGTGCG	480
CTGCBGCGCT	CGGCTTGGTC	CCGGBGBGCG	CGCGGGCGGG	GGGCTGCTGG	GGGTTGGCCC	540
GGGGTGGCCC	GCCGCTGGGT	GCCCTCGTCC	TCTGCGGTCG	TGTTCTCTGG	CTCTGGTTCC	600
CCGCTGCGCC	CGTTGTCTCT	TGGGGTGGCC	TTGCTCCCG	GGTCTGGTTC	TTGTGTGGGG	660
GGTCCCTTTT	TGGGCTGTTT	GTGGCGTGGC	TTGTGTGTTT	GGTTTCTGCC	CTGTCTCCCG	720
GCGTCCCCGG	BGCCTCCCCG	GGGCBGBBTG	BCTTTTGBGG	GGGBCBGB	TGCTGGGCB	780

TTGCCBGGTC	CTGGGBBCBG	BGCCCCBGBC	BGGBCCBGGB	GTGCGGGCBG	CGCGGGCCGG	840
GGGCTGCTGG	GBGCCBTBGC	GBGGCTGBGC	CTCTTTTCTG	TTTTTCCCCT	CTGCCCTTGT	900
TTGGGTTCGC	TTCTTTTCTG	CTTCTTCCCT	GTGTCTCCTG	TCTCCGCTTT	TTTCTTCGTC	960
TTTGTGTGTT	TCTCTTCCTT	GCTGBGCBBG	BTBTCTBGBT	TCTGGGGTGG	TCTCGBTTTT	1020
BBBBGCTTGB	GBBGCTGCBB	BCBTTBTCCB	BBGTBTBTTT	GBGGCTCCBB	GGBTBCBGB	1080
CBTCTTCCCB	GGCBTTTTBB	GTTGCTGTGC	TBBGTGBGBG	CTGBGBGBBB	CTGTGBBGC	1140
BTCTBGBCTT	CBGBGTCTCT	TTTBCCCCGT	TCTTGGCTTC	TTCTGTCCGT	TGGCTTCTCG	1200
TTGTCCCTGT	GGGCTTCTCG	TTGTCCCCCT	TTCGGGGGCT	GGTGGGGCCG	TCCTTGCCTG	1260
CTGGGTTCCT	GGCTTCTTCT	GTCGCTTGGC	TTCTCGTTGT	CCCTGTGGGC	TTCTCGTTGT	1320
CCCCCTTCG	GGGGCTGGTG	GGCCCGTCC	TGCCTGCTGG	TTTTCTCTTT	CGCTTCTTTT	1380
TCGTCTCCTG	TTCTCTCTTT	TTTGCTGTTT	TTTCTCCTTC	TTCTCTCCTT	TCTTTTCTTT	1440
TCTCTTTCTG	TTCTTTTCTG	TCTCTGTTC	CTCCTTTTTT	GCTGTTTTTT	CTCCTTCTTC	1500
TCTCTTTTCT	TTTCTCTGTG	CTTGTCTGCG	TCCTTCGTGG	GGCTCTGTGT	CGCGTGGGTG	1560
CGGCGGTGGC	CGGCGGBCCB	GBBGTGGGBG	CBGGGBCBGG	BCGGGCBGGC	GGCTCBTGTT	1620
TGGBTCGGCB	GBBGGCBCTC	CTCTGGTTGG	CTTCTTCTGC	CGGCBCTGTC	TBGCBBGBBG	1680
BBCBGBGGG	GBBGGCBTTG	GGBGGTGBBG	CCCBTTBBTB	GGTGTCTGTC	CCTGTTTCCC	1740
CCCTTTCTGT	CTGCGTTTGC	CTTGGCGTTT	TTTTGTTTGT	TTTCTCTCTC	CGTCTTTCTT	1800
CTCCCTCTGT	GGBBTTTCTG	TGGGGBTGGC	BTBCBCGTBG	GCBGCTCCBB	GBGCTBGCBB	1860
BCTCBBBTGC	BGBBGBCTCC	TCTBGGCTCT	GBBBGGGTGG	GAATTTCTGT	GGGGBTGGA	1920
TACACGTAGG	CAGCTCCAAG	AGCTAGCAAA	CTCAATGCA	GAAGCATCCT	CATGGCTCTG	1980
AAACGGGGGG	TGGCTTCTCT	CCGCGTCTCT	GGGCGTCCC	GTCCCTCGGC	CCCGCGCCGC	2040
GCTCGGCTCC	TCTCCTCTCT	GCCCGGCTCG	GGCGGGGGCG	GGGCGGTGGG	CGGGCGGCGC	2100
TGCCCTGCGC	CGGCGGCTGG	CCCCTGCTGG	CCGTGCGCTG	CGCGCTGCTG	GCTGCCCTGC	2160
TGGCCGCGCC	GGGGCTGTCT	CGCCTCTGCG	GGCGCTGTCT	CCTGGCTTGT	CTTCCGGCTC	2220
TTCTGTCTGG	GTGGGGCTGG	CGGCGCGGCC	CGGTGCTGGG	GCTCCTCGGG	GGGGGGGGCT	2280
CTTCCGGGCT	GTCTCCCTCC	GGGGCGGGGG	TTTTTGCCCG	TGGGGGTCTT	GCCTGGCCTC	2340
CGGCTCTCTG	CTTGTCTTGC	CTTCTTCTCT	TGGTCTGTTG	TGGCTCGGGG	CTCCGTGGGT	2400
CCCTGGCGCC	CGTTTGTGTT	TTGTCTTTTC	CCCTGGCGTC	CCTGTGCCCC	TCTCCTCTCC	2460
TTCTCTGCT	TCTCGCTCTC	CTTTGTGGGG	CCCTCCCTGC	TGCTCTTGGT	TTTGGGCTTT	2520
TTTTCTCTTC	CTCCTTTTTT	GTGCGTGGGC	CTCCGCACGC	CTCTTGCCAC	CTCCTGCGCA	2580
GGCGAGCGCG	TTGGGGCCAG	CGCCGCTCCC	GGCGCGGCCA	GCAGGGCAGC	CAGCAGCGCG	2640
CAGCCGACGG	CCAGCATGCT	TCCTCCTCGG	CTACCACTCC	ATGGTCCCGC	AGAGGCGGAC	2700
AGGCGCBCGC	CTCTTGCCBC	CTCCTGCGCB	GGGCBGCGCC	TGGGGGCCBG	CGCCGCTCCC	2760
GGCGCGGCCB	GCBGGGCBGC	CBGCBGCGCG	CBGCGBTGCT	TCCTCCTCGG	TCCTCCTCGG	2820
CTBCCBCTCC	BTGGTCCCGC	BGBGGCGGBC	BGGCGGGGTG	GBBBGGTTTG	GBGTBTGTCT	2880
TTBTGCBCTG	BCBTCTBBGT	TCTTTBGCBC	TCCTTGGCBB	BBCTGCBCTT	TCBCCBGBBG	2940
CTGCBGBBBT	CBGGBBGGCT	GCCBBGBGBG	CCBGGGCCBG	CTTGGBBGTC	BTGTTTBCBC	3000
BCBGTGBGBT	GGTTCCTTCC	GGGCTTGTGT	GCTCTGTGTC	CTCTTGGTTC	CTTCCGGTGG	3060
TTTCTTCTCT	GCTCTTGTCT	TTTCTCTTGG	CCCTTGGCCG	GGBTGGGGGG	TCCTGGBCGG	3120
CBCTGBBGGC	BTCCBGGGCT	CCCTTCCCGT	CTTCTTGTCT	CGCTGCCBGC	BCCCTTCTBT	3180
TCCBGBGGCT	GBTGGCTTCC	BCCBGGGBCB	TGBTTBGGTB	GBBBCTBGGG	GGCCGGCCTC	3240
CBCCBGGGBC	BTGGTCTTTC	TGTCCGCTGC	CCTCTCTGGG	GTTTTCTGTC	TGGGTGGGCT	3300
TTCTCTCTGG	GGCTGCTGCT	GGGCTCTTCT	TTTTGTTTCT	GGCCTGGTGC	TCTCTCGTGC	3360
CCTTTCCCTT	GGGTGTCTTG	TTTTTGTGGC	CTCCBCCBGG	GBCBTGGTCT	TTGTTTCTGG	3420
GCTCGTGCCC	BTCCCGGCTG	TCTCTCTGCT	TCCGTCTCTT	GTTGTGTTTG	GCCCTGCTTC	3480
CTTTTGCCTG	TTTGGGGGGC	AGCAGTTGGG	CCCAAAAGGC	CCTCTCGTTC	ACCTTCTGGC	3540
ACGGAGTTGC	ATCCCATAG	TCAAACCTCT	TGGTCTGTCT	ATAGTCTCTT	GTGGTGTTTG	3600
GAGTTTCCAT	CCCGGCTTCT	CTCTGGTTCC	AAGGGAGBGG	GGGCBGCBGT	TGGGCCCCBB	3660
BGGCCCTCTC	GTTTCCGCTT	TGGCBGCBGG	TTGCBTCCCC	BTBGTCTBBB	TCTGTGGTGC	3720
TGTCBTBGTG	CTCTGTGGTG	TTTGGBGTTC	CCBTCCCGGC	TTCTCTCTGG	TTCCBBGGGB	3780
GGGCBGCGGG	CBGTGGGCGG	GCBBTGTBGG	CBBBGCBGCB	GGGTGTGGTG	TCCBGBGBBT	3840
BTGGGGBGGC	BGBTGCBGGG	GCGCBGGBGG	CBGTBGCBBT	GBGBBTGBCB	GCBGGGCGTG	3900
CCGCGGBGBC	CTTCTBGGTB	CCTGTGGBGB	GGCTGTGGBG	GGGGGTGTGG	TGTCGCGTTG	3960
GCGGTTCTTT	CGGGTGTTTC	TTCTCTGGGT	TGGCCTGCTG	CTCGTCTGGG	TCGCTCCGCT	4020
CCCGGGTTCT	TCTCGCTCTG	TGCCCCCTTC	CTTCTTGTCT	GTGTTTCTCC	CTTCTTGTCC	4080
TCTGTTGTTT	GTTTCCBBBG	CBTCCBBGBT	BGCTTTGCTB	TCTBBGGBTC	BCBTTTBGBC	4140
BTBGGBBBBC	GCTGTBGGTC	BGBBBGBTGT	GCTTBCCTTC	BCBCBGBGCT	GCBGBBBTBC	4200
GGBBGGCTGC	CBGBGBGGCC	BCGGCCBGGT	TGGBGTCTBT	TTTBCBCBCB	GTGBGGTGCT	4260
CCGGTGGCTT	TTTGTCTTGT	TGCTCTGCTG	TCTCTGTTCC	TTCCGGTGGT	TTCTTCTCTG	4320
CTCTTGTCTT	TTCTCTTGGC	CCTTGGCCCC	TTGBGCBGGB	BGCTCTGGGG	CBGGGBGCTG	4380
GCBGGGCCCB	GTTGCTGGCT	TTCTGTGCBT	CTCGBGCTGC	CBCTGTGCCB	CBGCBGCBGC	4440
TGCBGGGCCB	TCBGCTTCTB	GGGGCTCTGG	GTGGCBGGTC	CBGCCBTGGG	TCTGGGTGGG	4500
GCTGGGCTGC	BGGTCCGGGG	CGGTCCBGCC	BTGGGTCTGG	GGGCTGGGCT	GCBGGCTCCG	4560
GGCGGGCGGG	TGCGGGCTGC	GTGCTGGGGG	GTCGCCCGCA	GGCCCTGCGG	TCCBCCCBTG	4620
GGTCTGGGGG	CTGGGCTGCB	GGCTCCGGGC	GGCGGGGTGC	GGGCTGCGTG	CTGGGGGCTG	4680
CCCCGCAGGC	CCTGCGCBCC	GCCTGGBGCC	CTGGGGCCCC	CCTGTCTTCT	TGGGBGCGGC	4740
CTCCTCGGCC	BGCTCCBCGT	CCCGGBTCBT	GCTTTCBGTG	CTCBTGGTGT	CCTTTCBGGG	4800
GGBGBGBGGG	GCTGGTCTCT	TGCTGTCTCT	GCTGGTGCTC	BTGGTGCTCT	TTCCGCCCTG	4860

GGGCCCCCCT	GTCTTCTTGG	GGCCTCTTCC	CTCTGGGGGC	CGTCTCTCTC	CCTCTCTTGC	4920
GTCTCTCTCT	TTCTCTCTCT	CTCTTCCCTT	TTCCCGCTCT	TTCTGTCTCG	GTGTCTGGTT	4980
TTCTCTCTCC	GCTGGCTGCC	TGTCTGGCCT	GCGCTCTTGG	CCTGTGCTGT	TCCTCCTCCG	5040
GTTCCTGTCC	TCTCTGTCTG	TGCCCCCTC	TGGGGTCTCC	CTCTGGGTGG	TGGTCTTGTT	5100
GCTTGGGCTG	GGCTCCGTGT	CTCCBGCTCT	CBTGGTGTCC	GCTGBGGGBG	CGTCTGCTGG	5160
CGCTGGTCC	CTGCTGTCTT	TGCTGGTGCT	CBTGGTGTCC	TTTCCGCCCT	GGGGCCCCCC	5220
TGCTTCTTGG	GGGCTCTTTC	CCTCTGGGGG	CCGTCTCTCT	CCCTCTCTTG	CGTCTCTCTC	5280
TTTCTCTCTC	TCTCTTCCCT	TTTCCCGCTC	TTTCTGTCTC	GGTGTCTGGT	TTTCTCTCTC	5340
CGCTGGCTGC	CTGTCTGGCC	TGCGCTCTTG	GCCTGTGCTG	TTCTCTCTCC	GGTTCTCTGC	5400
CTCTCTGTCT	GTCGCCCCCT	CTGGGGTCTC	CCTCTGGCGT	GGTGGTCTTG	TGCTTGGGGC	5460
TGGGCTCCGT	GTCTCCBGTC	CTCBTGGTGT	CCGCTGBGGG	BGCGTCTGCT	GGCCTGCTGB	5520
GGCTTGGGTC	TCCGGGCGBT	TCTCTGCBGB	BGBTGCTCBB	BGGGCTCCGG	CBGTTCCTCC	5580
TTGBTCTGGT	CGCTGTCTGB	CCBGTCGGBC	CBGTBBTTCB	GBTCBTCBTT	GGCTCCTBTT	5640
TCTTCTGCB	BCBGCTGBGT	GGBGBCBGB	BBBBBGBCTG	CCBBGGCCBC	GBGGBTTTTC	5700
BTGTTGGBTT	TTGCBGCGGB	CBGTCCCGCG	GGGTGCTGAG	TTTCTCTGGT	TCCTCCGBGC	5760
GCBCGTGGTC	GCTCGCGGTT	TCTCTGGTTC	CTCCGGTCCC	GCGGGGTGCT	GTCTGGTCCG	5820
TGTCGTGGCT	TGGGTCTCCG	GGCGGTTTCC	TTCTTTTCC	GCCGGCCCTT	CTCACTGGAG	5880
GCACCGGGCA	GTCTCCATG	GGAGGGTTGG	GCTTGGCCGG	GGCTGCCCGG	TGCCTCCTCT	5940
TGGCTGGTCC	CTCGTTGTCC	TTGGGCCCGG	CTCCGGCTGC	TGCGCCTCCG	TGTTCTTTGG	6000
CCTCTTGCTC	CGCCTGCTGT	CTTGTCCCGT	CCCTCCTCG	CTTGCGTTTC	CCTCTTCTCT	6060
GTCTTCCAGG	CCTTCTCCCG	CTTCCGCTGC	TGGGGCCCGC	GCCGGGGGGG	CGCTCGGCTC	6120
CGCGGCTTCC	TCCCCGGGCT	GGGGGTCTCT	GTCTCCGGGG	CCTGCGGCTC	GCGGGCTCGG	6180
GGCTGCGTGC	GCCGCGCGCG	GCGTCCGCGG	TGGGTGGCGC	TGTCGCCCGG	TGGTGTGTCT	6240
CCGTCTCTCG	CCTGCGCCGT	CCTGGTCTGC	CCGTGGGGTC	CTGGGCGTGG	TGGGGGGCGT	6300
CTGGTGCCTC	GTCTGCCCCG	TGGGGCTTCG	GGCTCGGGGC	TGTTCTGTCC	CCCTGCCGCT	6360
CTGTGGCCTC	CGGGGCTCCT	CGTTTTCTGT	GCTTCGGGTG	TCCTTCTCGG	CGTGTGGCCC	6420
CGGGTCCCGG	CCCTGCTGGG	CTGGGCGGGG	TCGCTGCCCT	GGGCTTCTGG	CCCGTCTGGT	6480
TGTCTGTCTG	TGCTGTCTCT	GGGTTTCTGG	CCTCTGTGCT	GGGCGCTTCT	CTGCCTCCTG	6540
CTCCGCCCTC	CTGTGTGGCT	GGCTGGGGGT	GCCCGTGCGG	GGGTGGGTGT	GGGGTGTTTT	6600
CGGGGTCTCT	CCCTTCCCGT	TTCATCTTGG	CTTTATCCTC	TCCCCTTGTT	CCTCCCCTCT	6660
CCTGCTCTGG	RGTCTCCTCT	TCCCTCCCTC	CCCTGCCGTG	TTGTCTGTGG	GTGTCGTTTC	6720
GCTCTTGTGG	CCCTGGGCCC	TTCCCTGCTG	GGGGGGAGTT	TTCATCTGGG	TTTCBTCTTG	6780
GCTTTBTCTT	CTCCCTTGTG	TCCTCCCTCT	TCCTGCTCTG	GRGTCTCCTC	TTCCCTCCCT	6840
CCCTTGGCGT	GTTGTCTGTG	GGTGTCTGTT	CGCTCTTGTG	GCCCTGGGCG	CTTCCCTGCT	6900
GGGGGGGBGT	TTCTCTTGGG	GGGGGBGTTT	CBTCTTGGCT	TTCCGTGTTG	TCBGTGGTGC	6960
TGCCCCGTTG	BGGTBTGGCG	CTCCBCCBBT	TCCCTTTTCT	CCTTGTTTTC	CGTTTCTCTT	7020
GCCGTCTGTG	GTT					7033

(2) INFORMATION FOR SEQ ID NO:2412:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2412:

GATGGAGGGC GGCATGGCGG G

21

(2) INFORMATION FOR SEQ ID NO:2413:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2413:

GCGGGTCGCC GG

12

(2) INFORMATION FOR SEQ ID NO:2414:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2414:

GCGGGGCBGB GGC

13

(2) INFORMATION FOR SEQ ID NO:2415:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2415:
GGCGGGCBC

9

(2) INFORMATION FOR SEQ ID NO:2416:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2416:
GCGGCCTGG

9

(2) INFORMATION FOR SEQ ID NO:2417:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2417:
GGBGGCGCGC

10

(2) INFORMATION FOR SEQ ID NO:2418:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2418:
GBTGGBGGG

9

(2) INFORMATION FOR SEQ ID NO:2419:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2419:
GGCTGGGC

8

(2) INFORMATION FOR SEQ ID NO:2420:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 981 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2420:
1 ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC
61 CTGGTCTCTG TGCCCGGGAA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG
121 CGGGATGCCA CTTCTGCTT CATCGTCTCG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC
181 CTGGTCATCC CCCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC
241 CTCATGGTTG CCGTCCGGT CCTCATCCTC ACCCAGAGCT CCATCCTGGC CCGTCTGGCA
301 ATTGCTGTGG ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC
361 CCCCAGAGGG CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG
421 ACCCCTATGT TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC
481 AGCATGGGGG AGCCCGTGAT CAAGTGCGAG TTCGAGAAGG TCATCAGCAT GGAGTACATG
541 GTCTACTTCA ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC TCCTCATGGT CCTCATCTAC
601 CTGGAGGTCT TCTACCTAAT CCGCAAGCAG CTCAACAAGA AGGTGTCGGC CTCCTCCGGC
661 GACCCGAGAG AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCCTC
721 TTCCTCTTTG CCCTCAGCTG GCTGCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTGC
781 CCGTCCCTGCC ACAAGCCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC
841 TCGGCCATGA ACCCCATTGT CTATGCCTTC CGCATCCAGA AGTTCGCGT CACCTTCCTT
901 AAGATTTGGA ATGACCATT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA
961 GAAGAGAGGC CTGATGACTA G

(Musical notation for the first system of the score)

(A) LENGTH: 2900 base pairs

(B) TYPE: nucleic acid

(D) TOPOLOGY: linear

1 ATGAGTGTCA GAAGTGTGAA GGGTGCCTGT TCTGAA

1	ATGAGTGTCA	GAAGTGTGAA	GGGTGCCTGT	TCTGAATCCC	AGAGCCTCCT	CTCCCTCTGT
61	GAGGCTGGCA	GGTGAGGAAG	GGTTTAACCT	CAC'TGGAAGG	AATCCCTGGA	GCTAGCGGCT
121	GCTGAAGGCC	TCGAGGTGTG	GGGGCACTTG	GACAGAACAG	TCAGGCAGCC	GGGAGCTCTG
181	CCAGCTTTGG	TGACCTTGGG	CCGGGCTGGG	AGCGCTCGGG	CGGGAGCCGG	AGGCATATGA
241	GCTGCCGCGC	GTGTGTCAGA	GCCACGCCCA	GCCCTACGCG	CGCGCGCCGG	AGCTCTGTTC
301	CCTGGAAC TT	TGGGCACTGC	CTCTGGGACC	CCTGCCGGCC	AGCAGGCAGG	ATGGTGCTTG
361	CCTCGTGCCC	CTTGGTGCCC	GTCTGCTGAT	GTGCCCAGCC	TGTGCCCGCC	ATGCCGCCCT
421	CCATCTCAGC	TTTCCAGGCC	GCCTACATCG	GCATCGAGGT	GCTCATCGCC	CTGGTCTCTG
481	TGCCCGGGAA	CGTGTGGTGT	ATCTGCGTGG	TGAAGGTGAA	CCAGGCGCTG	CGGGATGCCC
541	CCTTCTGCTT	CATCGTGTCT	CTGGCGGTGG	CTGATGTGGC	CTGGGTGTCG	CTGGTCATCC
601	CCCTCGCCAT	CCTCATCAAC	ATTGGGCCAC	AGACCTACTT	CCACACCTGC	CTCATGGTTG
661	CCTGTCCGGT	CCTCATCCTC	ACCCAGAGCT	CCATCCTGGC	CCTGCTGGCA	ATTGCTGTGG
721	ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC	GGTACAAGAT	GGTGGTGACC	CCCCGGAGGG
781	CGGCGGTGGC	CATAGCCGGC	TGCTGGATGC	TCTCCTTCGT	GGTGGGACTG	ACCCCTATGT
841	TTGGCTGGAA	CAATCTGAGT	CGGGTGGAGC	GGGCGTGGGC	AGCCAACGGC	AGCATGGGGG
901	AGCCCGTGAT	CAAGTGCGAG	TTCGAGAAGG	TCATCAGCAT	GGAGTACATG	GTCTACTTCA
961	ACTTCTTTGT	GTGGGTGCTG	CCCCCGCTTC	TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT
1021	TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA	AGGTGTCCGC	CTCCTCCGGC	GACCCGCAGA
1081	AGTACTATGG	GAAGGAGCTG	AAGATCGCCA	AGTCGTGGC	CCTCATCCTC	TTCTCTTTTG
1141	CCCTCAGCTG	GCTGCCTTTG	CACATCCTCA	ACTGCATCAC	CCTCTTCTGC	CCGCTCTGCC
1201	ACAAGCCCAG	CATCCTTACC	TACATTGCCA	TCTTCTCAC	GCACGGCAAC	TCGGCCATGA
1261	ACCCATTGTT	CTATGCCTTC	CGCATCCAGA	AGTTCGCGCT	CACCTTCCTT	AAGATTTGGA
1321	ATGACCATTT	CCGCTGCCAG	CCTGCACTC	CCATTGACGA	GGATCTCCCA	GAAGAGAGGC
1381	CTGATGACTA	GACCCCGCCT	TCCGCTCCCA	CACGCCACA	TCCAGTGGGG	TCTCAGTCCA
1441	GTCTCACAT	GCCCGCTGTC	CCAGGGGTCT	CCCTGAGCCT	GCCCAGCTG	GGCTCTTGCC
1501	TGGGGGCATG	GGGGAGGCTC	TGAAGAGATA	CCCACAGAGT	GTGGTCCCTC	CACTAGGAGT
1561	TAAC TACCTT	ACACCTCTGG	GCCCTGCAGG	AGGCCTGGGA	GGGCAAGGGT	CCTACGGAGG
1621	GACCAGGTCT	CTAGAGGCCA	CAGTGTCTTG	AGCCCCACC	TGCTTGACCA	TCCCATGAGC
1681	AGTCCAGTGC	TTCAGGGCTG	GGCAGGTCTT	GGGGAGGCTG	AGACTGCAGA	GGAGCCACCT
1741	GGGCTGGGAG	AAGGTGCTTG	GGCTTCTGCG	GTGAGGCAGG	GGAGTCTGCT	TGCTCTAGAT
1801	GT'TGGTGGTG	CAGCCCAGG	ACCAAGCTTA	AGGAGAGGAG	AGCATCTGCT	CTGAGACGGA
1861	TGGAAGGAGA	GAGGT'TGAGG	ATGCACTGGC	CTGTTCTGTA	GGAGAGACTG	GCCAGAGGCA
1921	GCTAAGGGGC	AGGAATCAAG	GAGCCTCCGT	TCCCACCTCT	GAGGACTCTG	GACCCCAAGG
1981	CATACCAGGT	CT'AGGGTGTG	CTGCTCTCCT	TGCCCTGGGC	CAGCCACAGA	TTGTACGTGG
2041	GAGAGGCAGA	AAGGGTAGGT	TCA'GTAATCA	TTTCTGATGA	TTTCTGGAG	TGCTGGCTCC
2101	ACGCCCTGGG	GAGT'GAGCTT	GGTGCGGTAG	GTGCTGGCCT	CAAACAGCCA	CGAGGTGGTA
2161	GCTCTGAGCC	CTCCTTCTTG	CCCTGAGCTT	TCCGGGGAGG	AGCCTGGAGT	GTAATTACCT
2221	GTCACTCTGG	CCACAGCTC	CAC'TGGCCCC	CGTTGGCCGG	CCTGGACTGT	CCTAGGTGAC
2281	CCCATCTCTG	CTGCTTCTGG	GCC'TGATGGA	GAGGAGAAC	CTAGACATGC	CAACTCGGGA
2341	GCATTCTGCC	TGCTTGGGAA	CGGGGTGGAC	GAGGGAGTGT	CTGTAAGGAC	TCAGTGT'TGA
2401	CTGTAGGCGC	CCCTGGGGTG	GGTTTAGCAG	GCTGCAGCAG	GCAGAGGAGG	AGTACCCCCC
2461	TGAGAGCATG	TGGGGGAAGG	CCTT'GCTGTC	ATGTGAATCC	CTCAATACCC	CTAGTATCTG
2521	GCTGGGTTTT	CAGGGGCTTT	GGAAGCTCTG	TTGCAAGGTG	CCGGGGGTCT	AGGACTTTAG
2581	GGATCTGGGA	TCTGGGGGAAG	GACCAACCCA	TGCCCTGCCA	AGCCTGGAGC	CCCTGTGT'TG
2641	GGGGGCAAGG	TGGGGGAGCC	TGGAGCCCTT	GTGTGGGAGG	GCGAGGCCGG	GGAGCCTGGA
2701	GCCCCTGTGT	GGGAGGGCGA	GGCGGGGGAT	CCTGGAGCCC	CTGTGTCGGG	GGGCGAGGGA
2761	GGGGAGGTGG	CCGTGCGT'G	ACCTTCTGAA	CATGAGTGTG	AACTCCAGGA	CTTGCTTCCA
2821	AGCCCTTCCC	CTCTGTGGAA	ATTGGGTGTG	CCCTGGCTCC	CAAGGGAGGC	CCATGTGACT
2881	AATAAAAAAC	TGTGAACCTT				

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 1942 base pairs

(C) STRANDEDNESS: sing

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2422:
 1 CGCATTGTG TTTAATAAA AGAATCTGGA AGATAAATAG TCTGAAGAG AGACAAAGGA
 61 AGGAAAATTT AAATCCTTAG ATTCAAGCAG AAGAATTCCA TGTGAAGGT TTGGGTGTG
 121 GTTGTGTTG TTTGGTGTG TTTTGTGTTT TTTGTTTTTT TGTTTTTTTT TGAGATGGAG
 181 TCTCGTGTG TTACCGGGAG CGACAGAGCC GCACGGCCGA GTCGAGTCCC AGCCAGCTAC
 241 CATCCCTCTG GAGCTTACCG GCCGGCCTTG GCTTCCCCAG GAATCCCTGG AGCTAGCGGC
 301 TGCTGAAGGC GTGAGGTGT GGGGGCACTT GGACAGAACA GTGAGGCAGC CGGGAGCTCT
 361 GCCAGCTTGG GTGACCTTGG GTGCTTGCCT CGTGCCCTT GGTGCCCGTC TGCTGATGTG
 421 CCCAGCTGT GCCCGCATG CCGCCCTCCA TCTCAGCTTT CCAGGCCGCC TACATCGGCA
 481 TCGAGGTGCT CATCGCCCTG GTCTCTGTGC CCGGGAACGT GCTGGTGATC TGGCGGGTGA
 541 AGGTGAACCA GGCGTGCAG GATGCCACCT TCTGCTTCAT CGTGTGCTG GCGGTGGCTG
 601 ATGTGGCCGT GGGTGCCCTG GTCATCCCCC TCGCCATCCT CATCAACATT GGGCCACAGA
 661 CCTACTTCCA CACCTGCCTC ATGGTTGCCT GTCCGGTCTT CATCTCACC CAGAGCTCCA
 721 TCCTGGCCCT GCTGGCAATT GCTGTGGACC GCTACCTCCG GGTCAAGATC CCTCTCCGT
 781 ACAAGATGGT GTGACCCCTC CGGAGGGCCG CGGTGGCCAT AGCCGGCTGC TGGATCCTCT
 841 CCTTCGTGGT GGGACTGACC CCTATGTTTG GCTGGAACAA TCTGAGTGC GTGGAGCGGG
 901 CCTGGGCAGC CAACGGCAGC ATGGGGGAGC CCGTGATCAA GTGCGAGTTC GAGAAGGTCA
 961 TCAGCATGGA GTACATGGTC TACTTCAACT TCTTTGTGTG GGTGCTGCCC CCGCTTCTCC
 1021 TCATGGTCTT CATCTACCTG GAGGTCTTCT ACCTAATCCG CAAGCAGCTC AACAGAAGG
 1081 TGTCGGCCTC CTCGGCCGAC CCGCAGAAGT ACTATGGGAA GGAGCTGAAG ATCGCCAAGT
 1141 CGCTGGCCCT CATCTCTTCT CTCTTTGCCC TCAGCTGGCT GCCTTTGCAC ATCTCAACT
 1201 GCATCACCCT CTTCTGCCCG TCCTGCCACA AGCCAGCAT CCTTACCTAC ATTGCCATCT
 1261 TCCTCAGCA CGGCAACTCG GCCATGAACC CCATTGTCTA TGCCCTCCGC ATCCAGAAGT
 1321 TCCCGCTCAC CTTCTTAAG ATTTGGAATG ACCATTTCCG CTGCCAGCCT GCACCTCCCA
 1381 TTGACGAGGA TCTCCAGAA GAGAGCCCTG ATGACTAGAC CCGCCTTCC GCTCCACCG
 1441 CCCACATCCA GTGGGGTCTC AGTCCAGTCC TCACATGCCG GCTGTCCCAG GGGTCTCCCT
 1501 GAGCTGCCC CAGCTGGGCT GTTGGCTGGG GGCATGGGG AGGCTCTGAA GAGATACCA
 1561 CAGAGTGTGG TCCCTCCACT AGGAGTTAAC TACCTACAC CTCTGGGCCC TGAGGAGGC
 1621 CTGGGAGGGC AAGGGTCTA CGGAGGGACC AGGTGTCTAG AGGCAACAGT GTTCTGAGCC
 1681 CCCACCTGCC TGACCATCCC ATGAGCAGTC CAGAGCTTCA GGGCTGGGCA GGTCTGGGG
 1741 AGGCTGAGAC TGCAGAGGAG CCACCTGGGC TGGGAGAAGG TGCTTGGGCT TCTGCGGTGA
 1801 GGCAGGGGAG TCTGCTGTG TTAGATGTTG GTGGTGACG CCCAGGACCA AGCTTAAGGA
 1861 GAGGAGAGCA TCTGCTCTGA GACGGATGGA AGGAGAGAGG TTGAGGATGC ACTGGCCTGT
 1921 TCTGTAGGAG AGACTGGCCA GA

(2) INFORMATION FOR SEQ ID NO:2423:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5904 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2423:

ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC CTGGTCTCTG
 TGCCCGGGAA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG CGGGATGCCA CCTTCTGCTT
 ATCGTCTCG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC CTGGTCATCC CCTCGCCAT CCTCATCAAC ATTGGGCCAC
 AGACCTACTT CCACACCTGC CTCATGGTTG CCTGTCCGGT CCTCATCCTC ACCCAGAGCT CCATCCTGGC
 CCTGCTGGCA ATTGCTGTGG ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC
 CCCCAGAGGC CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG CCCCTATGT TTGGCTGGAA
 CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC AGCATGGGGG AGCCCGTGAT CAAGTGCAGAG
 TTCGAGAAGG TCATCAGCAT GGAGTACATG GTCTACTTCA ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC
 TCCTCATGGT CCTCATCTAC CTGGAGGTCT TCTACCTAAT CCACAAGCAG CTCAACAAGA AGGTGTCCGC
 CTCCTCCGGC GACCCGAGA AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCCTC
 TTCTCTTTG CCCTCAGCTG GCTGCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTGC CCGTCTGACC
 ACAAGCCAG CATCTTACC TACATGGCCA TCTTCTCAC GCACGGCAAC TCGGCCATGA ACCCATTTGT
 CTATGCCCTT CGCATCCAGA AGTTCCGCGT CACCTTCTT AAGATTTGGA ATGACCATT TCCGCTGCCAG
 CCTGCACCTC CCATTGACGA GGATCTCCCA GAAGAGAGGC CTGATGACTA G ATGAGTGTCA GAAGTGTGAA
 GGGTGCCCTG TCTGAATCCC AGAGCTCCT CTCCCTCTGT GAGGCTGGCA GGTGAGGAAG GGTAAACCT
 CACTGGAAGG AATCCCTGGA GCTAGCGCT GCTGAAGGCG TCGAGGTGTG GGGGCACTTG GACAGAACAG
 TCAGGCAGCC GGGAGCTCTG CCAGCTTTGG TGACCTTGGG CCGGGCTGGG AGCGCTGCGG CCGGAGCCGG
 AGGACTATGA GCTGCCCGCG GTTGTCAGA GCCCAGCCCA GCCCTACGCG CGCGGCCCGG AGCTCTGTTC
 CCTGGAACCT TGGGCACTGC CTCTGGGACC CCTGCCGGCC AGCAGGCAG ATGGTGCTTG CCTCGTGCCC

CTTGGTGCCC	GTCTGCTGAT	GTGCCCAGCC	TGTGCCCCGCC	ATGCCCGCCT	CCATCTCAGC	TTTCCAGGCC
GCCTACATCG	GCATCGAGGT	GCTCATCGCC	CTGGTCTCTG	TGCCCGGGAA	CGTGCTGGTG	ATCTGGGCGG
TGAAGGTGAA	CCAGGCGCTG	CGGGATGCCA	CCTTCTGCTT	CATCGTGTG	CTGGCGGTGG	CTGATGTGGC
CGTGGGTGCC	CTGGTCAATC	CCCTCGCCAT	CCTCATCAAC	ATTGGGCCAC	AGACCTACTT	CCACACCTGC
CTCATGGTTG	CCTGTCCGGT	CCTCATCCTC	ACCCAGAGCT	CCATCCTGGC	CCTGCTGGCA	ATTGCTGTGG
ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC	GGTACAAGAT	GGTGGTGACC	CCCCGGAGGG	CGGCGGTGGC
CATAGCCGGC	TGCTGGATCC	TCTCCTTCGT	GGTGGGACTG	ACCCCTATGT	TTGGCTGGAA	CAATCTGAGT
GCGGTGGAGC	GGGCTGGGC	AGCCAACGGC	AGCATGGGGG	AGCCCCGTAT	CAAGTCCGAG	TTGAGAAGG
TCATCAGCAT	GGAGTACATG	GTCTACTTCA	ACTTCTTTGT	GTGGGTGCTG	CCCCCGCTTC	TCCTCATGGT
CCTCATCTAC	CTGGAGGTCT	TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA	AGGTGTCCGC	CTCCTCCGGC
GACCCGCAGA	AGTACTATGG	GAAGGAGCTG	AAGATCGCCA	AGTCGCTGGC	CCTCATCCTC	TTCCTCTTTG
CCCTCAGCTG	GCTGCCTTTG	CACATCCTCA	ACTGCATCAC	CCTCTTCTGC	CCGTCTTGCC	ACAAGCCCAG
CATCCTTACC	TACATTGCCA	TCTTCTCAC	GCACGGCAAC	TCGGCCATGA	ACCCCATTGT	CTATGCCTTC
CGCATCCAGA	AGTTCGCGGT	CACCTTCCTT	AAGATTTGGA	ATGACCATT	CCGCTGCCAG	CCTGCACCTC
CCATTGACGA	GGATCTCCCA	GAAGAGAGGC	CTGATGACTA	GACCCCGCCT	TCCGCTCCCA	CCAGCCCACA
TCCAGTGGGG	TCTCAGTCCA	GTCCCTACAT	GCCCGCTGTC	CCAGGGGTCT	CCCTGAGCCT	CCCCAGCTG
GGCTGTTGGC	TGGGGGCATG	GGGGAGGCTC	TGAAGAGATA	CCCACAGAGT	GTGGTCCCTC	CACTAGGAGT
TAACCTACCT	ACACCTCTGG	GCCCTGCAGG	AGGCCTGGGA	GGGCAAGGGT	CCTACGGAGG	GACCAGGTGT
CTAGAGGCAA	CAGTGTTCCT	AGCCCCCACC	TGCCTGACCA	TCCCATGAGC	AGTCCAGCGC	TTCAGGGCTG
GGCAGGTCCT	GGGGAGGCTG	AGACTGCAGA	GGAGCCACCT	GGGCTGGGAG	AAGGTGCTTG	GGCTTCTGCG
GTGAGGCAGG	GGAGTCTGCT	TGTCTTAGAT	GTTGGTGGTG	CAGCCCCAGG	ACCAAGCTTA	AGGAGAGGAG
AGCATCTGCT	CTGAGACGGA	TGGAAGGAGA	GAGGTTGAGG	ATGCACCTGG	CTGTTCTGTA	GGAGAGACTG
GCCAGAGGCA	GCTAAGGGGC	AGGAATCAAG	GAGCCTCCGT	TCCACCTCT	GAGGACTCTG	GACCCAGGC
CATACCAGGT	GCTAGGGTGC	CTGCTCTCCT	TGCCCTGGGC	CAGCCCAGGA	TTGTACCTGG	GAGAGGCAGA
AAGGGTAGGT	TCAGTAATCA	TTTCTGATGA	TTTGCTGGAG	TGCTGGCTCC	ACGCCCTGGG	GAGTGAGCTT
GGTGCGGTAG	GTGCTGGCCT	CAAACAGCCA	CGAGGTGGTA	GCTCTGAGCC	CTCCTTCTTG	CCCTGAGCTT
TCCGGGGAGG	AGCCTGGAGT	GTAATTACCT	GTCATCTGGG	CCACCAGCTC	CACTGGCCCC	CGTTGCCGGG
CCTGGACTGT	CCTAGGTGAC	CCCATCTCTG	CTGCTTCTGG	GCCTGATGGA	GAGGAGAACA	CTAGACATGC
CAACTCGGGA	GCATTCTGCC	TGCCTGGGAA	CGGGGTGGAC	GAGGGAGTGT	CTGTAAGGAC	TCAGTGTGTA
CTGTAGGCGC	CCCTGGGGTG	GGTTTAGCAG	GCTGCAGCAG	GCAGAGGAGG	AGTACCCCC	TGAGAGCATG
TGGGGGAAGG	CCTTGCTGTC	ATGTGAATCC	CTCAATACCC	CTAGTATCTG	GCTGGGTTTT	GCTGGGTTTT
GGAACTCTCT	TGCGAGGTGT	CCGGGGGTCT	AGGACTTTAG	GGATCTGGGA	TCTGGGGGAA	GACCAACCCA
TGCCCTGCCA	AGCCTGGAGC	CCCTGTGTTG	GGGGGCAAGG	TGGGGGAGCC	TGGAGCCCC	GTGTGGGAGG
GCGAGGCGGG	GGAGCCTGGA	GCCCCGTGTG	GGGAGGGCGA	GGCGGGGAT	CCTGGAGCCC	CTGTGTCGGG
GGGCGAGGGA	GGGGAGGTGG	CCGTGCGTTG	ACCTTCTGAA	CATGAGTGTC	AACTCCAGGA	CTTGCTTCCA
AGCCCTTCCC	TCTGTGGGAA	ATTGGGTGTG	CCCTGGCTCC	CAAGGGAGGC	CCATGTGACT	AATAAAAAAC
TGTGAACCC	CGCATTTGTG	TTTTAATAAA	AGAATCTGGA	AGATAAATAG	TCTTGAAGAG	AGACAAAGGA
AGGAAAATTT	AAATCCTTAG	ATTCAAGCAG	AAGAATTCCA	TGTGGAAGGT	TTGGGTGTGT	GTTGTTGTGT
TTTGGTGTGT	TTTTTGTTTT	TTTGTTTTTT	TGTTTTTTTT	TGAGATGGAG	TCTCGCTGTG	TTACCGGGAG
CGACAGAGCC	GCACGGCCGA	GTCGAGTCCC	AGCCAGCTAC	CATCCCTCTG	GAGCTTACCG	GCCGGCCTTG
GCTTCCCCAG	GAATCCCTGG	AGCTAGCGGC	TGCTGAAGGC	GTCGAGGTGT	GGGGGCACCT	GGACAGCAAC
GTACAGCAGC	CCGAGCTTCT	GCCAGCTTTG	GTCACCTTGG	GTGCTTGCTT	CGTGCCCTTT	GGTGCCCGTC
TGCTGATGTG	CCCAGCCTGT	GCCCCCATG	CCGCCCTCCA	TCTCAGCTTT	CCAGGCCGCC	TACATCGGCA
TCGAGGTGCT	CATCGCCCTG	GTCTCTGTGC	CCGGGAACGT	GCTGGTGATC	TGGGCGGTGA	AGGTGAACCA
GGCGCTGCGG	GATGCCACCT	TCTGCTTCAT	CGTGTGCTG	GCGGTGGCTG	ATGTGGCCGT	GGGTGCCCTG
GTACATCCCC	TCGCCATCCT	CATCAACATT	GGGCCACAGA	CCTACTTCCA	CACCTGCCTC	ATGGTTCGCT
GTCGGTCCCT	CATCCTCACC	CAGAGCTCCA	TCCCTGGCCCT	GCTGGCAATT	GCTGTGGACC	GCTACCTCCG
GGTCAAGATC	CCTCTCCGGT	ACAAGATGGT	GGTGACCCCC	CGGAGGGCGG	CGGTGGCCAT	AGCCGGCTGC
TGGATCCTCT	CCTTCGTGGT	GGGACTGACC	CCTATGTTTG	GCTGGAACAA	TCTGAGTGCG	GTGGAGCGGG
CCTGGGCAGC	CAACGGCAGC	ATGGGGGAGC	CCGTGATCAA	GTGCGAGTTC	GAGAAGGTCA	TCAGCATGGA
GTACATGGTC	TACTTCAACT	TCTTTGTGTG	GGTGCTGCC	CCGCTTCTCC	TCATGGTCC	CATCTACCTG
GAGGTCTTCT	ACCTAATCCG	CAAGCAGCTC	AACAAGAAGG	TGTCGGCCTC	CTCCGGCGAC	CCGCAGAAGT
ACTATGGGAA	GGAGCTGAAG	ATCGCCAAGT	CGCTGGCCCT	CATCCTCTTC	CTCTTTGCC	TCAGCTGGCT
GCCTTTGCAC	ATCCTCAACT	GCATCACCTT	CTTCTGCCCG	TCCTGCCACA	AGCCCAGCAT	CCTTACCTAC
ATTGCCATCT	TCCTCACGCA	CGGCAACTCG	GCCATGAACC	CCATTGTCTA	TGCCTTCCGC	ATCCAGAAGT
TCCGCGTCAC	CTTCCCTAAG	ATTTGGAATG	ACCATTTCGG	CTGCCAGCCT	GCACCTCCCA	TTGACGAGGA
TCTCCAGAA	GAGAGGCCCTG	ATGACTAGAC	CCCGCTTCC	GCTCCACCG	CCCACATCCA	GTGGGTCTC
AGTCCAGTCC	TCACATGCC	GCTGTCCAG	GGGTCTCCCT	GAGCCTGCCC	CAGCTGGGCT	GTTGGCTGGG
GGCATGGGGG	AGGCTCTGAA	GAGATACCCA	CAGAGTGTGG	TCCCTCCACT	AGGAGTTAAC	TACCTACAC
CTCTGGGCCC	TGCAGGAGGC	CTGGGAGGGC	AAGGGTCTTA	CGGAGGGACC	AGGTGTCTAG	AGGCAACAGT
GTCTGAGCC	CCCACCTGCC	TGACCATCCC	ATGAGCAGTC	CAGAGCTTCA	GGGCTGGGCA	GGTCTGGGG
AGGCTGAGAC	TGCAGAGGAG	CCACCTGGGC	TGGGAGAAGG	TGCTTGGGCT	TCTGCGGTGA	GGCAGGGGAG

TCTGCTTGTC TTAGATGTTG GTGGTGCAGC CCCAGGACCA AGCTTAAGGA GAGGAGAGCA TCTGCTCTGA
 GACCGATGGA AGGAGAGAGG TTGAGGATGC ACTGGCCTGT TCTGTAGGAG AGACTGGCCA GA GAT GGA GGG CGG
 CAT GGC GGG G CGG GTC GCC GG GGC GGG CBC BGG C GGC GGG CBC GC GGC CTG G GGB GGG CGG C
 GBT GGB GGG GG CTG GGC GC GGC CTG GAA AGC TGA GAT GGA GGG CGG CAT GGC GGG CAC AGG CTG
 GGC

(2) INFORMATION FOR SEQ ID NO:2424:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1687 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2424:

1 CCCAGCCCCG AGGCTCAGAA GCGGCAGCGC GAGGCGCGGT CCGGGCGGCTA TGGCCATGCC
 61 CGGCGGGTCT CACGCGGCTG CCCCTCGCCC GCGCGCGCTT CCGTAGGGGG CGCCCCGGGG
 121 CCAGCTGGCC CGGCCATGCT GCTGGAGACA CAGGACGCGC TGTACGTGGC GCTGGAGCTG
 181 GTCATCGCCG CGCTTTCGGT GCGGGGCAAC GTGCTGGTGT GCGCCGCGGT GGGCACGGCG
 241 AACACTCTGC AGACGCCCCA CAACTACTTC CTGGTGTCCC TGGCTGCGGC CGACGTGGCC
 301 GTGGGGGCTCT TCGCCATCCC CTTTGCCATC ACCATCAGCC TGGGCTTCTG CACTGACTTC
 361 TACGGGTGCC TCTTCCTCGC CTGCTTCGTG CTGGTGCTCA CGCAGAGCTC CATCTTCAGC
 421 CTTCTGGCCG TGGCAGTCGA CAGATACCTG GCCATCTGTG TCCCGCTCAG GTATAAAAGT
 481 TTGGTCACGG GGACCCGAGC AAGAGGGGTC ATTGCTGTCC TCTGGGTCTT TGCCCTTTGGC
 541 ATCGGATTGA CTCATTCCCT GGGGTGGAAC AGTAAAGACA GTGCCACCAA CAACTGCACA
 601 GAACCCTGGG ATGGAACCAC GAATGAAAGC TGCTGCCTTG TGAAGTGTCT CTTTGAGAAT
 661 GTGGTCCCCA TGAGCTACAT GGTATATTTC AATTTCTTTG GGTGTGTTCT GCCCCACTG
 721 CTTATAATGC TGGTGATCTA CATTAAAGATC TTCTTGGTGG CCTGCAGGCA GCTTCAGCGC
 781 ACTGAGCTGA TGGACCACTC GAGGACCACC CTCCAGCGGG AGATCCATGC AGCCAAGTCA
 841 CTGGCCATGA TTGTGGGGAT TTTTGCCCTG TGCTGGTTAC CTGTGCATGC TGTTAAGTGT
 901 GTCACCTTTT TCCAGCCAGC TCAGGGTAAA AATAAGCCCA AGTGGGCAAT GAATATGGCC
 961 ATTCTTCTGT CACATGCCAA TTCAGTTGTC AATCCCATTG TCTATGCTTA CCGGAACCGA
 1021 GACTTCCGCT ACACTTTTCA CAAAATTATC TCCAGGTATC TTCTCTGCCA AGCAGATGTC
 1081 AAGAGTGGGA ATGGTCAGGC TGGGGTACAG CCTGCTCTCG GTGTGGGCTT ATGATCTAGG
 1141 CTCTCGCCTC TTCCAGGAGA AGATACAAAT CCACAAGAAA CAAAGAGGAC ACGGCTGGTT
 1201 TTCATTGTGA AAGATAGCTA CACCTCACAA GGAAATGGAC TGCCTCTCTT GAGCACTTCC
 1261 CTGGAGCTAC CACGTATCTA GCTAATATGT ATGTGTCAGT AGTAGCACA AGGATTGACA
 1321 AATATATTTA TGATCTATTC AGCTGCTTTT ACTGTGTGGA TTATGCCAAC AGCTTGAATG
 1381 GATTCTAACA GACTCTTTTG TTTTAAAG TCTGCCCTGT TTATGGTGA AAATTACTGA
 1441 AACTATTTTA CTGTGAAACA GTGTGAACTA TTATAATGCA AATACTTTT AACTAGAGG
 1501 CAATGGAAAA ATAAAAGTTG ACTGTACTAA AAATGTATAC TTGTTGCCAG GAAGGTGACC
 1561 TCAAAAAATTA AAAGTATAAT TATTCGGCGG GGCATGGTGG CTCACACCTG TAATTCCAGC
 1621 ACTTTGGGAG GCCAAGGCAG GCGGATCAGC AGGTCAGGAG TTCAAAACCA GCCTGTCCAA
 1681 TATAGTG

(2) INFORMATION FOR SEQ ID NO:2425:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1733 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2425:

1 GGGAATTTG TTAGTTATCC GCCGCCACCA AGACGCGGCA CGGCGCCTGG ACCGGAGGGG
 61 CCCC CGCGG GCGCGAACTT TGGGCTCGGG CGAGTGGGTG GTGCTCCGCC CAGCCCAGAGA
 121 CGGGCGGGCG CGCGGGCCAA TGGGTGCCGC CTCTTGGCCG CCGGGGGCCC CGACCCGTGG
 181 GTCCCGGCCA CCAGCGCCCC AGCCCCGAGG CTCAGAAGCG GCAGGCGGAG GCGCGGTCCG
 241 GCGCTATGG CCATGCCCGG CGGGTCTCAC GCGGTGCCCC CTCGCCCCGG CCGCCTTCGG
 301 TAGGGGGGCG CCGGGGCCCC GCTGGCCCCG CCATGCTGCT GGAGACACAG GACGCGCTGT
 361 ACGTGGCGCT GGAGCTGGTC ATCGCCGCGC TTTCGGTGGC GGGCAACGTG CTGTTGTGCG
 421 CCGCGGTGGG CACGGCGAAC ACTCTGCAGA CGCCACCAA CTACTTCCTG GTGTCCCTGG
 481 CTGCGGCCGA CGTGGCCGTG GGGCTCTTCG CCATCCCTTT TGCCATCACC ATCAGCCTGG
 541 GCTTCTGCAC TGAATTCTAC GGCTGCCTCT TCCTCGCCTG CTTCGTGCTG GTGCTCACGC
 601 AGAGCTCCAT CTTACGCCCT CTGGCCGTGG CAGTCGACAG ATACCTGGCC ATCTGTGTCC
 661 CGCTCAGGTA TAAAAGTTTG GTCACGGGGA CCCGAGCAAG AGGGGTCAAT GCTGTCTCT
 721 GGTCTCTTGC CTTTGGCATC GGATTGACTC CATTCTGGG GTGGAACAGT AAAGACAGTG

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781 CCACCAACAA CTGCACAGAA CCTTGGGATG GAACCACGAA TGAAAGCTGC TGCCTTGTGA
841 AGTGTCTCTT TGAGAATGTG GTCCCCATGA GCTACATGGT ATATTTCAAT TTCTTTGGGT
901 GTGTTCTGCC CCCACTGCTT ATAATGCTGG TGATCTACAT TAAGATCTTC CTGGTGGCCT
961 GCAGGCAGCT TCAGCGCACT GAGCTGATGG ACCACTCGAG GACCAACCTC CAGCGGGAGA
1021 TCCATGCAGC CAAGTCACTG GCCATGATTG TGGGGATTTT TGCCCTGTGC TGGTTACCTG
1081 TGCATGCTGT TAACTGTGTC ACTCTTTTCC AGCCAGCTCA GGGTAAAAAT AAGCCCAAGT
1141 GGGCAATGAA TATGGCCATT CTTCTGTAC ATGCCAATTC AGTTGTCAAT CCCATTGTCT
1201 ATGCTTACCG GAACCGAGAC TTCCGCTACA CTTTTCACAA AATTATCTCC AGGTATCTTC
1261 TCTGCCAAGC AGATGTCAAG AGTGGGAATG GTCAGGCTGG GGTACAGCCT GCTCTCGGTG
1321 TGGGCTATG ATCTAGGCTC TCGCCTCTTC CAGGAGAAGA TACAAATCCA CAAGAAACAA
1381 AGAGGACACG GCTGGTTTTT ATTGTGAAAG ATAGCTACAC CTCACAAGGA AATGGACTGC
1441 CTCTCTTGAG CACTTCCCTG GAGCTACCAC GTATCTAGCT AATATGTATG TGTCACTAGT
1501 AGGCTCCAAG GATTGACAAA TATATTTATG ATCTATTGAG CTGCTTTTAC TGTGTGGATT
1561 ATGCCAACAG CTTGAATGGA TTCTAACAGA CTCTTTTGT TTTAAAGTC TGCCTTGTTC
1621 ATGGTGGAAA ATTACTGAAA CTATTTTACT GTGAAACAGT GTGAACATTT ATAATGCAAA
1681 TACTTTTAA CTTAGAGGCA ATGGAAAAAT AAAAGTTGAC TGTACTAAAA ATG

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(2) INFORMATION FOR SEQ ID NO:2426:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2470 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2426:

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1 GAATTCCAG ATGGGCAGAG GTGGCTGGGC TGGTGACCCT AAGTGTGTCT CCTGCCTTTA
61 TTCTCTCTAG TGGGTATTTC TTTCATGTGG TATCTTGCCCT ACAGCATGCT GTGTTTGGAC
121 ACAAACCCCT TTCCTTGTTT TCTCTGACCC AGCTGAGATG GACTGATTCC AAAAGAACTC
181 ACCTATGTAC TGGGGTAGGG GAGGGAGGGT TTTTTCAGT ATTTAACTAA GGTCAAAGA
241 GTGCTATATA GTGAGAAAGG CTTCTTTTTT TTTTTCGCA GAGTGCTGCC
301 TCCTAGAAAT TTCTCTTGGT AACTTCCTTC TCTGAAGCAC AGATAAGAA AACAATTACA
361 GTAGAAACAT TTATGAGGGA CACATTGGAG GCCGATGAAG CTTTTCAAGT TCCAGCAGTG
421 CAGGGATGTG GGCAGAACTG ACATTGGAAA ATACTAGAAT GATGGAAATT CAGTTGGAGA
481 GGAATGCCCT TTTTAAATGTC TGGGGAGTCT GCTCAGGGAG AAATGACAAG TCTGGCGGGG
541 ACAAGTATGG GATTTGGTAA GACTTGGATC AACTTGGGAT ACAGGGTGGG GGTCCGGAGT
601 GGAATCAATG AATGATGCCA GAGCAGATCA ACTAACAAGA GGACCTGAT GAGCCCCAGG
661 CAGAGGCGTC TCCCTTATGC CCCACTCTGA AGTGTTCGTT AGTAAACACC AGAACGCCAT
721 TGTGTTACT GCTGAATTTT ATTTTGGGCT GTACATATTT AGATGCTTAA GGTAAAAATG
781 ATAAAGCCCT CAAGCCACTG TGTGGGTTTG GGTCCAAGTG TTCCTTCTTG CTGCCTCTCT
841 AACACGCCCT GTTAAATAA TCCCTTTGGA TGGTGTGAG AAGCACCTGA ACCAAGTGGG
901 TCCCCAATA ACAATGGCGT GCAAGTGTCT GGTCCCAGA AGTTGGTGAC TAGGTAAGCA
961 GCTTCAGGGA GAGGGGGCTG ATTCCAGAC AGTCGCCTGT TCCTGCGGGG ATGGGGCTGA
1021 GGCTTGGGGA ATGTGGGCAG GAGGATATGC CATTTGATTC TGTTGCACAC GTTCTTTTCC
1081 CTCTTTCTG TATGTCTGGT CATTCTGCTA TTCTGTCGTT CCTCACATAG GTTGGACATT
1141 GGCCGGCTGC CAGCATAAGT GCCAGTGTGA TTTTGCTAGG TGTGAGCTGA GAAAGAGAGG
1201 TGGAGGCTAA GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGGCCT TCTGAGCAGG
1261 GAATCTTTGC TTATCCCTTT GACCAAGGAT CTTTGTGCA AAGGCTGGGT ATCGGCTGTG
1321 CTCAGCAAAG CGTCAACTCG TGCAAGAACT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA
1381 GGCTGCCACC AAAGTCTCTT TTTTGTTCCT CTGCTTCTCC CGTTTGCCCT CTTATCATGA
1441 GATCTTTTTG CTAAGCTGGC AGAAAGATTG CATAGTCAGT GCTTCCAGCT CTGCTCCAC
1501 CTGATCCTGC ACTGTCTCTT GGTCCCTGAA TGAATGAACT CTGATACCCA ATCTTGTCTC
1561 GAGCCTTCTC TATGCCACTC ATGGCTCCTC TTCTGCTCTT TCCATCTTTT TGCTGAGAGT
1621 TCTGAGCTCT GTACTTCTCT TGGGCCATC TCACTTCTG AAACACCCCT GAAGAGGGTT
1681 GCTTATCTTG ATGGAATCA AAAAGCCAAA AAGCTGCAGG CAGAGGCGTT GAGGACATCT
1741 GTTTGGGGAA CTAAGAGCAG CAGCACTTTC AGATTGAGTC CATATAGAGC TGTCTACAG
1801 CATTCTGGAA ACTTGAGGAT GTGCGGTGCA TAAAGGGGCT GGAAGTGACC CACCTGTGAT
1861 GAGCCCTTTC TAAGGAGAAG GGTTCCAAG AGATCACCCC ACCAGAAAAG GGTAGGAATG
1921 AGCAAGTTGG GAATTTTAGA CTGTCACTGC ACATGGACCT CTGGGAAGAC GTCTGGCGAG
1981 AGCTAGGCCC ACTGGCCCTA CAGACGGATC TTGCTGGCTC ACCTGTCCCT GTGGAGGTTT
2041 CCCTGGGAAG GCAAGATGCC CAACAACAGC ACTGCTCTGT CATTGGCCAA TGTACCTAC
2101 ATCACCATGG AAATTTTCAT TGGACTCTGC GCCATAGTGG GCAACGTGCT GGTCACTGCT
2161 GTGGTCAAGC TGAACCCAG CCTGCAGACC ACCACCTTCT ATTTCAATTG CTCTCTAGCC
2221 CTGGCTGACA TTGCTGTTGG GGTGCTGGTC ATGCCTTTGG CCATTGTTGT CAGCCTGGGC

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2281 ATCACAATCC ACTTCTACAG CTGCTTTTT ATGACTTGCC TACTGCTTAT CTTTACCCAC
 2341 GCCTCCATCA TGTCCTTGCT GGCCATCGCT GTGGACCGAT ACTTGCGGGT CAAGCTTACC
 2401 GTCAGGTAGC CTGCGGCGTG GGGTGGGCAG CAATTGAGGC AGCTGGGAAA TGAGGCTACA
 2461 AAGCCAGAGC

(2) INFORMATION FOR SEQ ID NO:2427:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1771 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2427:

1 CGAATTCGGG GGACATCTGT TTGGGGAAGT AAGAGCAGCA GCACTTTCAG ATTCAGTCCA
 61 TATAGAGCTG TCCTACAGCA TTCTGGAAAC TTGAGGATGT GCGGTGCATA AACGGGCTGG
 121 AAGTGACCCA CTTGTGATGA GCCCTTTCTA AGGAGAAGGG TTTCCAAGAG ATCACCCAC
 181 CAGAAAAGGG TAGGAATGAG CAAGTTGGGA ATTTTAGACT GTCAGTGCAC ATGGACCTCT
 241 GGAAGACGT CTGGCGAGAG CTAGGCCAC TGGCCCTACA GACGGATCTT GCTGGCTCAC
 301 CTGTCCTCTG GGAGGTTCCC CTGGGAAGGC AAGATGCCCA ACAACAGCAC TGCTCTGTCA
 361 TTGGCCAATG TTACCTACAT CACCATGGAA ATTTTCATTG GACTCTGCGC CATAGTGGGC
 421 AACGTGCTGG TCATCTGCGT GGTCAAGCTG AACCCAGCC TGCAGACCAC CACCTTCTAT
 481 TTCATTGTCT CTCTAGCCCT GGCTGACATT GCTGTTGGGG TGCTGGTCAT GCCTTTGGCC
 541 ATTGTTGTCA GCCTGGGCAT CACAATCCAC TTCTACAGCT GCCTTTTAT GACTTGCCCTA
 601 CTGCTTATCT TTACCCACGC CTCCATCATG TCCTTGCTGG CCATCGCTGT GGACCGATAC
 661 TTGCGGGTCA AGCTTACCGT CAGATACAAG AGGTCACCA CTCACAGAAG AATATGGCTG
 721 GCCCTGGGCC TTGCTGGCT GGTGTCATTC CTGGTGGGAT TGACCCCAT GTTTGGCTGG
 781 AACATGAAC TGACCTCAGA GTACCACAGA AATGTCACCT TCCTTTCATG CCAATTTGT
 841 TCCGTATGA GGTGGACTA CATGGTATAC TTCAGCTTCC TCACCTGGAT TTTCATCCCC
 901 CTGGTTGTCA TGTGCGCCAT CTATCTTGAC ATCTTTTACA TCATTCGGAA CAAACTCAGT
 961 CTGAACCTAT CTAACCTCAA AGAGACAGGT GCATTTTATG GACGGGAGTT CAAGACGGCT
 1021 AAGTCCTTGT TTCTGTTCT TTTCTGTTT GCTCTGTCT GGCTGCCTTT ATCTCTCATC
 1081 AACTGCATCA TCTACTTTAA TGGTGAGGTA CCACAGCTTG TGCTGTACAT GGCATCCTG
 1141 CTGTCCCATG CCAACTCCAT GATGAACCT ATCGTCTATG CCTATAAAAT AAAGAAGTTC
 1201 AAGGAAACCT ACCTTTTGAT CCTCAAAGCC TGTGTGGTCT GCCATCCCTC TGATTCTTTG
 1261 GACACAAGCA TTGAGAAGAA TTCTGAGTAG TTATCCATCA GAGATGACTC TGCTCATTG
 1321 ACCTTCAGAT TCCCATCAA CAAACACTTG AGGCCTGTA TGCCTGGGCC AAGGGATTTT
 1381 TACATCCTTG ATTACTTCCA CTGAGGTGGG AGCATCTCCA GTGCTCCCA ATTATATCTC
 1441 CCCCCTCCA CTACTCTCTT CCTCCACTTC ATTTTTCCTT TGCTCTTCT CTCTAATTC
 1501 GTGTTTTGGA GGCTGACTT GGGGACAACG TATTATTGAT ATTATTGTCT GTTTTCCTTC
 1561 TTCCCAATAG AAGAATAAGT CATGGAGCCT GAAGGGTGCC TAGTTGACTT ACTGACAAAA
 1621 GGCTCTAGTT GGGCTGAACA TGTGTGTGGT GGTGACTCAT TTCCATGCCA TTGTGGAATT
 1681 GAGCAGAGAA CCTGCTCTCG GAGGATGCCT AGGAGATGTT GGGAACAGAA GAAATAAACT
 1741 GAGTTTAAAG GGGACTTAA CTGCTGAATT C

(2) INFORMATION FOR SEQ ID NO:2428:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2100 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2428:

1 GCCGCCGCG CCAAGATGGC GGACCTGGAG GCGGTGCTGG CCGACGTGAG CTACCTGATG
 61 GCCATGGAGA AGAGCAAGGC CAGCCCGGCC GCGCGCGCCA GCAAGAAGAT ACTGCTGCCC
 121 GAGCCAGCA TCCGCAAGT CATGCAGAAG TACCTGGAGG ACCGGGGCGA GGTGACCTTT
 181 GAGAAGATCT TTTCCAGAA GCTGGGGTAC CTGCTCTTCC GAGACTTCTG CCTGAACCAC
 241 CTGGAGGAGG CCAGGCCCTT GGTGGAATTC TATGAGGAGA TCAAGAAGTA CGAGAAGCTG
 301 GAGACGGAGG AGGAGCGTGT GGCCCGCAGC CGGGAGATCT TCGACTCATA CATCATGAAG
 361 GAGCTGCTGG CCTGCTCGCA TCCCTTCTCG AAGAGTGCCA CTGAGCATGT CCAAGGCCAC
 421 CTGGGGAAGA AGCAGGTGCC TCCGATCTC TTCCAGCCAT ACATCGAAGA GATTGTCTAA
 481 AACCTCCGAG GGGACGTGTT CCAGAAATTC ATTGAGAGCG ATAAGTTCAC ACGGTTTTGC
 541 CAGTGAAGA ATGTGGAGCT CAACATCCAC CTGACCATGA ATGACTTCAG CGTGCATCGC
 601 ATCATTGGGC GCGGGGGCTT TGGCGAGTTC TATGGGTGCC GGAAGGCTGA CACAGGCAAG
 661 ATGTACGCCA TGAAGTGCCT GGACAAAAAG CGCATCAAGA TGAAGCAGGG GGAGACCCTG
 721 GCCCTGAACG AGCGCATCAT GCTCTCGCTC GTCAGCACTG GGGACTGCCC ATTCATTGTC

781 TGCATGTCAT ACGCGTTCCA CACGCCAGAC AAGCTCAGCT TCATCCTGGA CCTCATGAAC
841 GGTGGGGACC TGCCTACCA CCTCTCCCAG CACGGGGTCT TCTCAGAGGC TGACATGCGC
901 TTCTATGCGG CCGAGATCAT CCTGGGCGTG GAGCACATGC ACAACCGCTT CGTGGTCTAC
961 CGGGACCTGA AGCCAGCCAA CATCCTTCTG GACGAGCATG GCCACGTGCG GATCTCGGAC
1021 CTGGGCGCTG CCTGTGACTT CTCCAAGAAG AAGCCCCATG CCAGCGTGGG CACCCACGGG
1081 TACATGGCTC CGGAGGTCTT GCAGAAGGGC GTGGCCTACG ACAGCAGTGC CGACTGGTTC
1141 TCTCTGGGGT GCATGCTCTT CAAGTTGCTG CGGGGGCACA GCGCCTTCCG GCAGCACAAG
1201 ACCAAAGACA AGCATGAGAT CGACCGCATG ACGCTGACGA TGGCCGTGGA GCTGCCCCGAC
1261 TCCTTCTCCC CTGAATACG CTCCCTGCTG GAGGGGTGCG TGCAGAGGGA TGTCAACCGG
1321 AGATTGGGCT GCCTGGGCGG AGGGGCTCAG GAGGTGAAAG AGAGCCCTT TTTCCGCTCC
1381 CTGGACTGGC AGATGGTCTT CTTCGAGAAG TACCCTCCCC CGCTGATCCC CCCACGAGGG
1441 GAGGTGAACG CGGCCGACGC CTTCGACATT GGCTCCTTCG ATGAGGAGGA CACAAAAGGA
1501 ATCAAGTTAC TGGACAGTGA TCAGGAGCTC TACCGCAACT TCCCCCTCAC CATCTCGGAG
1561 CGGTGGCAGC AGGAGGTGGC AGAGACTGTC TTCGACACCA TCAACGTGTA GACAGACCGG
1621 CTGGAGGCTC GCAAGAAAGC CAAGAACAAG CAGCTGGGCC ATGAGGAAGA CTACGCCCCG
1681 GGCAAGGACT GCATCATGCA TGGCTACATG TCCAAGATGG GCAACCCCTT CCTGACCCAG
1741 TGGCAGCGGC GGTACTTCTA CCTGTTCCCC AACCCGCTCG AGTGGCGGGG CGAGGGCGAG
1801 GCGCCGACGA GCCTGCTGAC CATGGAGGAG ATCCAGTCGG TGGAGGAGAC GCAGATCAAG
1861 GAGCGCAAGT GCCTGCTCCT CAAGATCCGC GGTGGGAAAC AGTTTCATTT GCAGTCCGAT
1921 AGCGACCTG AGCTGGTGCA GTGGAAGAAG GAGCTGCGCG ACGCCTACCG CGAGGCCGAG
1981 CAGCTGGTGC AGCGGGTGCC CAAGATGAAG AACAAAGCCG GCTCGCCCGT GGTGGAGCTG
2041 AGCAAGGTGC CGCTGGTCCA GCGCGCAGT GCCAACGGCC TCTGACCCGC CCACCCGCCT

(2) INFORMATION FOR SEQ ID NO:2429:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2375 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2429:

1 CCAGGAAGCT ACCTGGAGGA GGTGAGTCTT AGCGGATGAG TAGGAGTTGT CCACGGAGGA
61 AGGTACACAG AAGGGCTTCC AGGCCAGGA AACAGCAGAG GCACAGAAGT GAGAATGGGT
121 GGGTGAGTTG GTGGGGAAAC TCCAGGTGCA GAGGATGGTA GCGAAACAAA CTGGAGCATT
181 AAGGTCCAAG TCCTCCAAGA TCTTGACTTG CAGATTAAAG AGTTTGTTC A CTAATCTGC
241 TTTGGGCAGA GTGTGGTGAG TCCTAGAGAC CCTCTAGGT CTCTCCTCTC AGTAGCCCCA
301 GAAGGCCTGG AGAGCTGCTT CTGGGTGCCA AGCAGGCAGT GACTCCATCA GATCTAGATT
361 TGGGAAAAGC ATCCCTGGTC AGGGCTGCA TCAGGGCAGT GGCTGGCCAT GAGGACCCCTG
421 AGAAGTAGAC AGATTACCG AGATTCTCAG GAGGCCAGAC AGGAGACTAT GGTGACAAAT
481 TAGATTAGAG AAGGGGAGAG AATGAAGGAG CAGTTGGGGT AAAAGAAAAC TGAGGCTGAC
541 ATGGGTATAT GGGTGCGAG TGACTACCA CCCACTGAGA GGAGAACCCT ACAAGCTCTG
601 ACATGCTCTG GTTCCAGGTT CTGTTGGGGC TGATCCAAGA TGGTAGCCTA GAGGTGCACA
661 GAGATGGGGG CCTTGCTTTG CAAAAGGATG CTGGCTGCTG GCCACAGCA TGGTAATGAG
721 ATTTGAGCTT TATGTGCCCA GGGCTGGGAG GAGGGTCTCT TCACTTTGAA AGCAAAGAGA
781 GGCTCTAGAG AGGGGCATGT TGAGATAGGA ATGCTGCCTT GAGACACCTG GCTTTCCCCA
841 CTCTGGGTGG CTCTCAGCAG GGTGGGTTTC CCTGCCAGG CAGCACTGAA CCTCTGTGCG
901 CTTCGGCTG GGAGAGTTTT TACCGTAAC ACATGTGGAA CCATCCTGAA GGAACATCTG
961 GATGGGATGG GGTACAGGGA AGGGAGCTGC CAAGAGTGCT GGCCAGGGAC CTGGGTCTAT
1021 GAGCTGGTTG GGGGGTGGG TTGGGTGCAG GGTACTTGAT CCTGAGTGGG CCTTCTGCGG
1081 CCAGGATTGG TTCTAGAGTA GGAGGGGTGG GATCGGGGAT GGGGGAAGCC TGTAAC TGCG
1141 CTGCAGTTGT CAGGTCCCAG GTTCTGGGTG ACCTACTAAG GATTCTGGGT CCAGTGTGGG
1201 TCCAGGTTA GACGTCCTAG TCCTGAGTCC GTGTCCACAG TTCTGGGTGT TGAGTCTAGG
1261 ACAGTGATCT GGAGTTGACA GTCCAATCTA GGTCTGAGTC CTGACCCCAA GTCTAGAGTT
1321 CAGGGTCATG GTAGTAGCCT AGGGTCAGAA TCAAGGTTGG GGTGAGTAAC CAGGATGGGA
1381 TCGAGGTCAT GGTCCAAAAT CTGGATCTGG GGACCTGTTG GGGGTCTGAG GTGAGTGTG
1441 CAGTCTGGGT ATGGCGTTGG AGACCCAGGG CTGTGATCTG AGGTCATGGT TAGAGTCTCA
1501 GGTGGTGGGC CAAGGTTTGA GTCTGGGGTC CTGTTTGGAG TCTGGTGTC GGTCTGTGAC
1561 TCGCTCCAAG GTCAGGGAGT CCGGGGTTAT AGCCAGGGTC TGAGATGAAA GTCCCAGATG
1621 GTGTTCAAG GTCTGAATCT GTGTCTTGGT GAGCGTCCAG GTTCCTGTG ATCACGTTTG
1681 GTGTCAGGGC TGCGGCCCGA CTGGGGAGCC TGGGATCCAG AGATGTGACC CGAGGTTGTG
1741 GTCAGAGAAT GGGTCTCGGG TCGTCTTCGT GCCGGGTCCC TGTCGTGTTT CAGGCCCGGG
1801 TCTCCGTCCA GCATCAGAGG CCGAGGTCAC GGCCAGGGTC TGAGCCCGCG GTGCGAGGTC
1861 TGGTTCGGGG TCAGATTCCG CGCGGCCTCC AGGGGGCGCC GTCGCCGCCC GGCTCGGCCC

1921	CTCGCGGGCT	CGTGGCGTT	GTGCGCGGCA	GGCGGGGCCG	GAGGCGGCGG	CGGCTCCGGG
1981	GGCGCGGGCC	GGGCGGCGGC	GGCGGCGGCG	CCCCGACTGC	AGTCCCGGCG	GGAGCGGAGC
2041	GCGAAGCGCG	GGGC CGGGCC	CGGAGCGGCG	GCCATGGGGC	GGCGCCGCCCT	GTGAGCGGCG
2101	GCAGCGGAG	CCGCGGGCGC	CGAGCAGGGC	CAGGCGGGAG	CGTCGGCGCC	CGAGGCCGAG
2161	CGAGCCGCGG	CCGGGCCGGG	CCGAGCGCCG	AGCGAGCAGG	AGGCGCGGCG	CGGGCGGCGG
2221	CGGCGGGAGG	AGGCAGCGGC	CGCGCCAAGA	TGGCGGACCT	GAGGCGGGTG	CTGGCCGACG
2281	TGAGCTACCT	GATGGCCATG	GAGAAGAGCA	AGGCCACGCC	GGCCGCGCGC	GCCAGCAAGA
2341	AGATACTGCT	GCCCCAGCCC	AGGTGAGGAG	AAGCT		

(2) INFORMATION FOR SEQ ID NO:2430:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4382 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2430:

AGCCGCGCCG	CCAAGATGGC	GGACCTGGAG	GCGGTGCTGG	CCGACGTGAG	CTACCTGATG	GCCATGGAGA
AGAGCAAGGC	CACGCCGGCC	GCGCGCGCCA	GCAAGAAGAT	ACTGCTGCCC	GAGCCCAGCA	TCCCGAGTGT
CATGCAGAAG	TACCTGGAGG	ACCGGGGCGA	GGTGACCTTT	GAGAAGATCT	TTTCCCAGAA	GCTGGGGTAC
CTGCTCTTCC	GAGACTTCTG	CCTGAACCAC	CTGGAGGAGT	CCAGGCCCTT	GGTGGAATTC	TATGAGGAGA
TCAAGAAGTA	CGAGAAGCTG	GAGACGGAGG	AGGAGCGTGT	GGCCCGCAGC	CGGGAGATCT	TCGACTCATA
CATCATGAAG	GAGCTGCTGG	CCTGCTCGCA	TCCCTTCTCG	AAGAGTGCCA	CTGAGCATGT	CCAAGGCCAC
CTGGGGAAGA	AGCAGGTGCC	TCCGATCTC	TTCCAGCCAT	ACATCGAAGA	GATTTGTCAA	AACCTCCGAG
GGGACGTGTT	CCAGAAATTC	ATTGAGAGCG	ATAAGTTTAC	ACGGTTTTGC	CAGTGGAAGA	ATGTGGAGCT
CAACATCCAC	CTGACCATGA	ATGACTTCAG	CTGTGCATCG	ATCATTTGGC	CGGGGGCTT	TGGCAGAGTT
TATGGTGCC	GGAAAGGTGA	CAGAGGCAAG	CGTACGCCA	TGAAGTGCC	GGACAAAAG	CGCATCAAGA
TGAAGCAGGG	GGAGACCTTG	GCCCTGAACG	AGCGCATCAT	GCTCTCGCTC	GTCAGCACTG	GGGACTGCCC
ATTCAATTGTC	TGCATGTCAT	ACGCGTTCCA	CAGGCCAGAC	AAGCTCAGCT	TCATCTCGGA	CCTCATGAAC
GGTGGGGACC	TGCACTACCA	CCTCTCCCAG	CACGGGGTCT	TCTCAGAGGC	TGACATGCGC	TTCTATGCGG
CCGAGATCAT	CCTGGGCCTG	GAGCACATGC	ACAACCGCTT	CGTGCTTAC	CGGGACTTGA	AGCCCGCCAA
CATCCTTCTG	GACGACGATG	GCCACGTGCG	GATCTCGGAC	CTGGGCTTGG	CCTGTGACTT	CTCCAAGAAG
AAGCCCCATG	CCAGCGTGGG	CACCCACGGG	TACATGGCTC	CGGAGGTCCT	GCAGAAGGGC	GTGGCCTACG
ACAGCAGTGC	CGACTGGTTC	TCTCTGGGGT	GCATGCTCTT	CAAGTTGCTG	CGGGGGCACA	GCCCCCTCCG
GCAGCACAG	ACCAAAGACA	AGCATGAGAT	CGACCGCATG	ACGCTGACGA	TGGCCCTGGA	GCTGCCCGAC
TCCTTCTCCC	CTGAATACG	CTCCCTGCTG	GAGGGGTTGC	TGCAGAGGGA	TGTCAACCGG	AGATTGGGCT
GCCTGGGCGG	AGGGGCTCAG	GAGGTGAAAG	AGAGCCCCCT	TTTCCGCTCC	CTGGAAGTGC	AGATGGTCTT
CTTGCAGAAG	TACCTCCTCC	CGCTGATCCC	CCCACGAGGG	GAGGTGAACG	CGGCCGACGC	CTTCGACATT
GGCTCCTTCG	ATGAGGAGGA	CACAAAAGGA	ATCAAGTTAC	TGACACAGTA	TCAGGAGCTC	TACCGCAACT
TCCCCCTCAC	CATCTCGGAG	CGGTGGCAGC	AGGAGGTGGC	AGAGACTGTC	TTTCGACACA	TCAACGCTGA
GACAGACCGG	CTGGAGGCTC	GCAAGAAAGC	CAAGAACAAG	CAGCTGGGCC	ATGAGGAAGA	CTACGCCTTG
GGCAAGGACT	GCATCATGCA	TGGCTTACATG	TCCAAGATGG	GCAACCCCTT	CCTGACCCAG	TGGCAGCGGC
GGTACTTCTA	CCTGTTCCCC	AACCGCCTCG	AGTGGCGGGG	CGAGGGCGAG	GCCCCGCAGA	GCCTGCTGAC
CATGGAGGAG	ATCCAGTCGG	TGGAGGAGAC	GCAGATCAAG	GAGCGCAAGT	GCCTGCTCCT	CAAGATTCGG
GGTGGGAAAC	AGTTCAATTT	GCAGTGCGAT	AGCGACCCTG	AGCTGGTGCA	TGGAAGAAG	GAGTTCGCGG
ACGCCTACCG	CGAGGCCGAG	CAGCTGGTGC	AGCGGGTGCC	CAAGATGAAG	AATCAACCGC	GCTCGCCCGT
GGTGAGCTG	AGCAAGGTGC	GCGTGGTCCA	GCGCGGAGT	GCCAACGGCC	TCTGACCCGC	CCACCCGCCT
CCAGGAAGCT	ACCTGGAGGA	GGTGAGTCTT	AGCGGATGAG	TAGGAGTTGT	CCACGGAGGA	AGGTACACAG
AAGGGCTTCC	AGGCCCAGGA	AACAGCAGAG	GCACAGAAGT	GAGAATGGGT	GGGTGAGTTG	GTGGGGAAAC
TCAGGTGCA	GAGGATGTA	GCGAAACAAA	CTGGAGCATT	AAGGTCCAAG	TCCTCCAAGA	TCTTGACTTG
CAGATTAAAG	AGTTTGTTGC	CCTAATCTGC	TTTGGGCAGA	GTGTGGTGAG	TCTTAGAGAC	CCCTCTAGGT
CTCTCCTCTC	AGTAGCCCTA	GAAGGCTGTG	AGAGCTGCTT	CTGGGTGCCA	AGCAGGCAGT	GACTCCATCA
GATCTAGATT	TGGGAAAAGC	ATCCCTGGTC	AGGGCCTGCA	TCAGGGCAGT	GGCTGGCCAT	GAGGACCTTG
AGAAGTAGAC	AGATTACGG	AGATTCTCAG	GAGGCCAGAC	AGGAGACTAT	GGTGACAAAT	TAGATTAGAG
AAGGGGAGAG	AATGAAGGAG	CAGTTGGGGT	AAAAGAAAAA	TGAGGCTGAC	ATGGGTATAT	GGGTGGCGAG
TGACTCACCA	CCCACTGAGA	GGAGAACCTC	ACAAGCTCTG	ACATGCTCTG	GTTCCAGGTT	CTGTTGGGGC
TGATCCAAGA	TGTTAGCCTA	GAGGTGCACA	GAGATTGGGG	CCTTGCTTTG	CAAAAGGATG	CTGGCTGCTG
CCCCACAGCA	TGTTAATGAG	ATTTGAGCTT	TATGTGCCCA	GGGCTGGGAG	GAGGGTCCTG	TCACTTTGAA
AGCAAAGAGA	GGCTCTAGAG	AGGGGCATGT	TGAGATAGGA	ATGCTGCCTT	GAGACACCTG	GCTTTCCCCA
CTCTGGGTGG	CTCTCAGCAG	GGTGGGTTC	CCCTGCCAGG	CAGCACTGAA	CCTCTGTGCG	CTTCCGGCTG
GGAGAGTTTT	TACCGTAACT	ACATGTGGAA	CCATCCTGAA	GGAACATCTG	GATGGGATGG	GGTACAGGGA
AGGAGAGTGC	CAAGAGTGCT	GGCCAGGGAC	CTGGGTCTAT	GAGTGGTTTG	GGGGGTGGGG	TTGGGTGCAG
GGTACTTGAT	CCTGAGTGGG	CCTTCTGCGG	CCAGGATTGG	TTCTAGAGTA	GGAGGGGTGG	GATCGGGGAT

GGGGGAAGCC	TGTAAGTGGC	CTGCAGTTGT	CAGGTCCCAG	GTTCTGGGTG	ACCTACTAAG	GATTCTGGGT
CCAGTGTGGG	TCCCAGGTTA	GACGTCCTAG	TCCTGAGTCC	GTGTCCACAG	TTCTGGGTGT	TGAGTCTAGG
ACAGTGATCT	GGAGTTGACA	GTCCAATCTA	GGTCTGAGTC	CTGACCCCAA	GTCTAGAGTT	CAGGGTCATG
G TAGTAGCCT	AGGGTCAGAA	TCAAGTTGG	GGTCAGTAAC	CAGGATGGGA	TCGAGGTCAT	GGTCCAAAAT
CTGGATCTGG	GGACCTGTTG	GGGGTCTGAG	GTGAGTGTCT	CAGTCTGGGT	ATGGCGTTGG	AGACCCAGGG
CTGTGATCTG	AGGTCAATGG	TAGAGTCTCA	GGTGGTGGGC	CAAGGTTTGA	GTCTGGGGTC	CTGTTTGGAG
TCTGGTGTCA	GGTCGTGGAC	TGCGTCCAAG	GTGAGGAGT	CCGGGGTTAT	AGCCAGGGTC	TGAGATGAAA
GTCCAGATG	GTGTTCAAG	GTCTGAATCT	GTGTCTTGGT	GAGCGTCCAG	GTTCCCTGTG	ATCACGTTTG
GTGTCAGGGC	TGCGGCCCGA	CTGGGAGACC	TGGGATCCAG	AGATGTGACC	CGAGGTTGTG	GTGAGAGAA
GGGTCTCGGG	TCGTCTTCGT	GCCGGGTCCC	TGTCGTGTTC	CAGGCCCGGG	TCTCCGTCCA	GCATCGAGGG
CCGAGGTCAC	GGCCAGGGTC	TGAGCCCGCG	GTGCGAGGTC	TGGTTCGGGG	TCAGATTCCG	CGCGGCCTCC
AGGGGGCGCC	GTGCGCGCCC	GGCTCGGCC	CTGCGGGGCT	CGCTGGCGTT	GTGCGCGGCA	GGCGGGGCGG
GAGGCGCGCG	CGGCTCCGGG	GGCGCGGGCC	GGGCGCGGCG	GGCGCGCGCG	CCCCGACTGC	AGTCCCGCGG
GGAGCGGAGC	GCGAAGCGCG	GGGCGGGGCC	CGGAGCCGCG	GCCATGGGGC	GGCGCGGCT	GTGAGCGGCG
GCGAGCGGAG	CCGCGGGCGC	CGAGCAGGGC	CAGGCGGGAG	CGTCGCGGCC	CGAGGCCGAG	CGAGCCGCGG
CCGGGCCGGG	CCGAGCGCGG	AGCGAGCAGG	AGCGGCGGCG	CGGCGGGGAG	CGGCGGGGAG	AGGCAGCGCC
GCCGCCAAGA	TGGCGGACCT	GGAGCGGGTG	CTGGCCGACG	TGAGCTACCT	GATGGCCATG	GAGAAGAGCA
AGGCCACGCC	GGCCGCGCGC	GCCAGCAAGA	AGATACTGCT	GCCCCAGCCC	AGGTGAGGAG	AAGCT

4382

(2) INFORMATION FOR SEQ ID NO:2431:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2599 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2431:

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1  CAGATTCA  AACTGCAGGA  CTGGGCAGGG  AGCAGACAGT  GAGCAAACGC  CAGCAGGGCT
61  GCTGTGAATT  TGTGTAAGGA  TTGAGGGACA  GTTGCTTTTC  AGCATGGGCC  CAGGAATGCC
121  AAGGAGACAT  CTATGCACGA  CCTTGGGAAA  TGAGTTGATG  TCTCCGGTAA  AACACCGGAG
181  ACTAATTCCT  GCCCTGCCCA  ATTTTGCAGG  GAGCATGGCT  GTGAGGATGG  GGTGAATCA
241  CGCACAGCCA  AGGACTCCAA  AATCACAACA  GCATTACTGT  TCTTATTTGC  TGCCACACCT
301  GAGCCAGCCT  GCTCCTTCCC  AGGAGTGGAG  GAGGCCCTGGG  GGGAGGGAGA  GGAGTGACTG
361  AGCTTCCCTC  CCGTGTGTTT  TCCGTCCCTG  CCCCAGCAAG  ACAACTTAGA  TCTCCAGGAG
421  AACTGCCATC  CAGCTTTGGT  GCAATGGCTG  AGTGACAAG  TGAGTTGTTG  CCCTGGGTTT
481  CTTTAATCTA  TTCAGCTAGA  ACTTTGAAGG  ACAATTTCTT  GCATTAATAA  AGGTTAAGCC
541  CTGAGGGGTC  CCTGATAACA  ACCTGGAGAC  CAGGATTTTA  TGGCTCCCTT  CACTGATGGA
601  CAAGGAGGTC  TGTGCCAAAG  AAGAATCCAA  TAAGCACATA  TTGAGCACTT  GCTGTATATG
661  CAGTATTGAG  CACTGTAGGC  AAGACCCAAG  AAAGAGAAGG  AGCCATCTCC  ATCTTGAAGG
721  AACTCAAAGA  CTCAAGTGGG  AACGACTGGG  CACTGCCACC  ACCAGAAAGC  TGTTGACGCA
781  GACGTCGAG  CAGGGTGCTG  TGGGTGATAT  GGACAGCAGA  AGGGGAGAGC  CAAGGTTCCA
841  GCTCAACCAA  TAACTATTGC  ACAACCACCT  GTCCCTGCCT  CAGTTCCTTT  TTATGTAACA
901  TGAAGTCGTT  GTGAGGGTTA  AAGGCAGTAA  CAGGTATAAA  GTACTTAGAA  AAGCAAAGGG
961  TGCTACGTAC  ATGTGAGGCA  TCATTACGCA  GACGTAACCT  GGATATGTTT  ACTATAAGGA
1021  AAAGACACTG  AGGTCTAGAA  ATAGCTCCGT  GGAGCAGAA  CAGTATTGGG  AGCCGGTGGC
1081  GGTGTGAAGC  ACCAGTGTCT  GGCACACAGT  AGGTGCTCAT  TGGCTCCCTT  CCACCTGTCA
1141  TTCCCAACAC  CCTGAGGGCC  CAACCGCCAC  ACACACAGGA  GCATTTGGAG  AGAAGGCCAT
1201  GTCTTCAAAG  TCTGATTGTG  GATGAGGCAG  AGGAAGATAT  TTCTAATCGG  TCTTGCCAG
1261  AGGATCACAG  TGCTGAGACC  CCCCACCACC  AGCCGGTACC  TGGGAAGGGG  GAGAGTGCAG
1321  GCCTGCTCAG  GGAAGTGTCC  TGTCTCAGCA  ACCAAGGGAT  TGTTCTCTGC  AATCAATGGT
1381  TTATTGGAAG  GTGGCCAGT  ATGAGCCCTA  GAAGAGTGTG  AAAAGGAATG  GCAATGGTGT
1441  TCACCATCGG  CAGTGCCAGG  GCAGCACTCA  TTCATTGAT  AAATGAATAT  TTATTAGCTG
1501  GTTGAGAGC  TAGAACCTGG  AGAGCTAGAA  CCTGGAGAAC  TAGAACCTGG  AGGGCTAGAA
1561  CCTGGAGAGG  CTAGAACCAG  GAAGGCTAG  AACCTGGAGG  GGCTAGAACC  TAGAGAAGCT
1621  AAAACCTGAG  CTAGAAGCTG  GAGGACTAGA  ACCTGGAGGG  CTGGAATCTG  AAGGGCTAGA
1681  ACCTGGAGGG  CTGGAATCTG  GAGAGCTAGA  ACCTGGAGGG  CTAGAACCTG  GAGGGCTAGA
1741  ACCTAGAAGG  GCTAGAACCT  GGAGGGCTGG  AATCTGGAGA  GCTAGAACCT  GGAGGGCTAG
1801  AACCTGGAGG  GCTAGAACCT  AGAAGGGCTA  GAACCTGGAG  GGCTAGAACC  TGGCAGGTTA
1861  GAACCTAGAA  GGGCTAGAAC  CTGGAGAGCC  AGAACCTGGA  GGGCTAGAAC  CTGGAAGGGC
1921  TAGAACCTGT  AGAGCTAGAA  CATGGAGAGC  TAGAACCCGG  CAGGCTAGAA  CCTGGCAAGC
1981  TAGAACCTGT  AGGGAATGAA  CCTGGAGGGC  TAGAACCTGT  AGAATGAGAA  AAATTTACAT
2041  GGCAAAGAGC  CCATAAATCC  TGACCAATCC  AACTCTGAAT  TTAAAGCAA  AAGCGTGAAA

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2101 AAAAAGATTC CCTCCTTACC CCCAACCCAC TCTTTTTTCC CACCACCCAC TCTCCTCTGC
 2161 CTCAGTAAGT ATCTGGAGGA AGAAAAACAGG TGAAAGAAGA AGTAAAAACC ATTTAGTATT
 2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAATAA AAAAAGAGGC
 2281 TGTGTTTTGT CACACAGGGC AGTCATTAGC CACCAGAGCA CGTGATGGTC TGAGACTCTC
 2341 TTAGGAGCAG AGCTCTGCCG CAATGGCCAT GTGGGGATCC ACACCTGGTC TGAGGGGCAA
 2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
 2461 TGTCTGTGA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATTT CACATCCAAA
 2521 CGAGAAAATC ATGTAACAT GTGTCTTTTC TGTAGAGCAT AATAAATGGA TGAGGTTTTT
 2581 GCAAAAAAAA AAAAAAAA

(2) INFORMATION FOR SEQ ID NO:2432:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 981 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2432:

1 ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC
 61 CTGCTCTCTG TGCCCGGGAA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG
 121 CGGGATGCCA CCTTCTGCTT CATCGTCTCG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC
 181 CTGGTCATCC CCCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC
 241 CTCATGGTTG CCTGTCCGGT CCTCATCCTC ACCCAGAGCT CCATCCTGGC CTGCTGGCA
 301 ATTGCTGTGG ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC
 361 CCGCGAGGG CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG
 421 ACCCTATGT TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC
 481 AGCATGGGGG AGCCCGTGAT CAAGTGCAG TTCGAGAAGG TCATCAGCAT GGAGTACATG
 541 GTCTACTTCA ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC TCCTCATGGT CCTCATCTAC
 601 CTGGAGGTCT TCTACCTAAT CCGCAAGCAG CTCACAAGA AGGTGTCGGC CTCCTCCGGC
 661 GACCCGCAGA AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCCTC
 721 TTCCTCTTTG CCCTCAGCTG GCTGCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTGC
 781 CCCTCCTGCC ACAAGCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC
 841 TCGGCCATGA ACCCCATTGT CTATGCCTTC CGCATCCAGA AGTTCGCGT CACCTTCCTT
 901 AAGATTTGGA ATGACCATT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA
 961 GAAGAGAGGC CTGATGACTA G

(2) INFORMATION FOR SEQ ID NO:2433:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2900 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2433:

1 ATGAGTGTCA GAAGTGTGAA GGGTGCCTGT TCTGAATCCC AGAGCCTCCT CTCCCTCTGT
 61 GAGGCTGGCA GGTGAGGAAG GGTTTAACCT CACTGGAAGG AATCCCTGGA GCTAGCGGCT
 121 GCTGAAGGCG TCGAGGTGTG GGGGCACTTG GACAGAACAG TCAGGCAGCC GGGAGCTCTG
 181 CCAGCTTTGG TGACCTTGGG CCGGGCTGGG AGCGCTGCGG CGGGAGCCGG AGGACTATGA
 241 GCTGCCCGCG GTTGTCCAGA GCCCAGCCCA GCCCTACGCG CGCGGCCCGG AGCTCTGTTC
 301 CCTGGAACCT TGGGCACTGC CTCTGGGACC CCTGCCGGCC AGCAGGCAGG ATGGTGCTTG
 361 CCTCGTGCCC CTGCTGCCC GTCTGCTGAT GTGCCAGCC TGTGCCCGCC ATGCCGCCCT
 421 CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC CTGGTCTCTG
 481 TGCCCGGGAA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG CGGGATGCCA
 541 CCTTCTGCTT CATCGTGTG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC CTGGTCATCC
 601 CCCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC CTCATGGTTG
 661 CCTGTCCGGT CCTCATCCTC ACCCAGAGCT CCATCCTGGC CCTGCTGGCA ATTGCTGTGG
 721 ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC CCGCGAGGG
 781 CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG ACCCCTATGT
 841 TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC AGCATGGGGG
 901 AGCCCGTGAT CAAGTGCAG TTCGAGAAGG TCATCAGCAT GGAGTACATG GTCTACTTCA
 961 ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC TCCTCATGGT CCTCATCTAC CTGGAGTCTT
 1021 TCTACCTAAT CCGCAAGCAG CTCACAAGA AGGTGTCGGC CTCCTCCGGC GACCCGCAGA
 1081 AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCCTC TTCCTCTTTG

1141 CCCTCAGCTG GCTGCCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTGC CCGTCCCTGCC
1201 ACAAGCCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC TCGGCCATGA
1261 ACCCCATTGT CTATGCCTTC CGCATCCAGA AGTTCCGCGT CACCTTCTTT AAGATTTGGA
1321 ATGACCATTT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA GAAGAGAGGC
1381 CTGATGACTA GACCCCGCCT TCCGCTCCCA CCAGCCACCA TCCAGTGGGG TCTCAGTCCA
1441 GTCCTCACAT GCCCCTGCTC CCAGGGGTCT CCCTGAGCCT GCCCCAGCTG GGCTGTGGG
1501 TGGGGGCATG GGGGAGGCTC TGAAGAGATA CCCACAGAGT GTGGTCCCTC CACTAGAGT
1561 TAACTACCCT ACACCTCTGG GCCCTGCAGG AGGCCTGGGA GGGCAAGGGT CCTACGGAGG
1621 GACCAGGTGT CTAGAGGCAA CAGTGTCTG AGCCCCACC TGCCTGACCA TCCCATGAGC
1681 AGTCCAGCGC TTCAGGGCTG GGCAGGTCTT GGGGAGGCTG AGACTGCAGA GGAGCCACCT
1741 GGGCTGGGAG AAGGTGCTTG GGCTTCTGCG GTGAGGCAGG GGAGTCTGCT TGTCTTAGAT
1801 GTTGGTGGTG CAGCCCCAGG ACCAAGCTTA AGGAGAGGAG AGCATCTGCT CTGAGACGGA
1861 TGGAAGGAGA GAGGTGAGG ATGCACTGGC CTGTTCTGTA GGAGAGACTG GCCAGAGGCA
1921 GCTAAGGGGC AGGAATCAAG GAGCCTCCGT TCCCACCTCT GAGGACTCTG GACCCAGGC
1981 CATACCAGGT GCTAGGGTGC CTGCTCTCCT TGCCCTGGGC CAGCCAGGA TTGTACGTGG
2041 GAGAGGCAGA AAGGGTAGGT TCAGTAATCA TTTCTGATGA TTTGCTGGAG TGCTGGCTCC
2101 ACGCCCTGGG GAGTGAGCTT GGTGCGGTAG GTGCTGGCCT CAAACAGCCA CGAGGTGGTA
2161 GCTCTGAGCC CTCCTTCTTG CCCTGAGCTT TCCGGGGAGG AGCCTGGAGT GTAATTACCT
2221 GTCATCTGGG CCACCAGCTC CACTGGCCCC CGTTGCCGGG CCTGGACTGT CTTAGGTGAC
2281 CCCATCTCTG CTGCTTCTGG GCCTGATGGA GAGGAGAACA CTAGACATGC CAACTCGGGA
2341 GCATTCTGCC TGCCCTGGGA CGGGGTGGAC GAGGGAGTGT CTGTAAGGAC TCAGTGTTGA
2401 CTGTAGGCGC CCCTGGGGTG GGTTTAGCAG GCTGCAGCAG GCAGAGGAGG AGTACCCCCC
2461 TGAGAGCATG TGGGGGAAGG CCTTGCTGTC ATGTGAATCC CTCAATACCC CTAGTATCTG
2521 GCTGGGTTTT CAGGGGCTTT GGAAGCTCTG TTGCAGGTGT CCGGGGGTCT AGGACTTTAG
2581 GGATCTGGGA TCTGGGGAAG GACCAACCCA TGCCCTGCCA AGCCTGGAGC CCCTGTGTTG
2641 GGGGGCAAGG TGGGGGAGCC TGGAGCCCT GTGTGGGAGG GCGAGGCGGG GGAGCTTGA
2701 GCCCCTGTGT GGGAGGGCGA GGGGGGGGAT CCTGGAGCCC CTGTGTCGGG GGGCGAGGGA
2761 GGGGAGGTGG CCGTCGGTTG ACCTTCTGAA CATGAGTGTC AACTCCAGGA CTTGCTTCCA
2821 AGCCCTTCCC TCTGTGGAAT ATTGGGTGTG CCCTGGCTCC CAAGGGAGGC CCATGTGACT
2881 AATAAAAAAC TGTGAACCTT

(2) INFORMATION FOR SEQ ID NO:2434:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1942 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2434:

1 CGCATTTGTG TTTTAATAAA AGAATCTGGA AGATAAATAG TCTTGAAGAG AGACAAAGGA
61 AGGAAAATTT AAATCCTTAG ATTCAAGCAG AAGAATTCCA TGTGGAAGGT TTGGGTGTGT
121 GTTGTGTGTG TTTGTGTGTG TTTTGTTTT TTTGTTTTT TGTTTTTTTT TGAGATGGAG
181 TCTCGCTGTG TTACCGGGAG CGACAGAGCC GCACGGCCGA GTCGAGTCCC AGCCAGCTAC
241 CATCCCTCTG GAGCTTACCG GCCGGCCTTG GCTTCCCCAG GAATCCCTGG AGCTAGCGGC
301 TGCTGAAGGC GTCGAGGTGT GGGGGCACTT GGACAGAACA GTCAGGCAGC CGGGAGCTCT
361 GCCAGCTTTG GTGACCTTGG GTGCTTGCCCT CGTGCCCTT GGTGCCCGTC TGCTGATGTG
421 CCCAGCCTGT GCCCGCCATG CCGCCCTCCA TCTCAGCTTT CCAGGCGGCC TACATCGGCA
481 TCGAGGTGCT CATCGCCCTG GTCTCTGTGC CCGGGAACGT GCTGGTGATC TGGGCGGTGA
541 AGGTGAACCA GGCCTGCGG GATGCCACCT TCTGCTTCAT CGTGTCTGTG GCGGTGGCTG
601 ATGTGGCCGT GGGTGCCCTG GTCATCCCCC TCGCCATCCT CATCAACATT GGGCCACAGA
661 CCTACTTCCA CACCTGCCTC ATGGTTGCCT GTCCGGTCTT CATCCTCACC CAGAGCTCCA
721 TCCTGGCCCT GCTGGCAATT GCTGTGGACC GCTACCTCCG GGTCAGATAT CCTCTCCGGT
781 ACAAGATGGT GGTGACCCCC CGGAGGGCGG CGGTGGCCAT AGCCGGCTGC TGGATCCTCT
841 CCTTCGTGCT GGGACTGACC CCTATGTTTG GCTGGAACAA TCTGAGTGC GGTGGAGCGG
901 CTTGGGCAGC CAACGGCAGC ATGGGGGAGC CCGTGATCAA GTGCGAGTTC GAGAAGGTCA
961 TCAGCATGGA GTACATGGTC TACTTCAACT TCTTTGTGTG GGTGCTGCCC CCGCTTCTCC
1021 TCATGGTCCCT CATCTACCTG GAGGTCTTCT ACCTAATCCG CAAGCAGCTC AACAAGAAGG
1081 TGTGCGCCTC CTCGGCGCAC CCGCAGAACT ACTATGGGAA GGAGCTGAAG ATCGCCAAGT
1141 CGCTGGCCCT CATCCTCTTC CTCTTGCCCC TCAGCTGGCT GCCTTTGCAC ATCCTCAACT
1201 GCATCACCTT CTTCTGCCCG TCCTGCCACA AGCCAGCAT CCTTACCTAC ATTGCCATCT
1261 TCCTCACGCA CGGCAACTCG GCCATGAACC CCATTGTCTA TGCCCTCCGC ATCCAGAAGT
1321 TCCGCGTCAC CTTCTTAAG ATTTGGAATG ACCATTTCCG CTGCCAGCCT GCACCTCCCA
1381 TTGACGAGGA TCTCCAGAA GAGAGGCCTG ATAGTAGAC CCCGCTTCC GCTCCACCG

1441 CCCACATCCA GTGGGGTCTC AGTCCAGTCC TCACATGCCC GCTGTCCCAG GGGTCTCCCT
 1501 GAGCCTGCCC CAGCTGGGCT GTTGGCTGGG GGCATGGGGG AGGCTCTGAA GAGATACCCA
 1561 CAGAGTGTGG TCCCTCCACT AGGAGTTAAC TACCCTACAC CTCTGGGCCC TGCAGGAGGC
 1621 CTGGGAGGGC AAGGGTCCTA CGGAGGACC AGGTGTCTAG AGGCAACAGT GTTCTGAGCC
 1681 CCCACCTGCC TGACCATCCC ATGAGCAGTC CAGAGCTTCA GGGCTGGGCA GGTCTGGGG
 1741 AGGCTGAGAC TGCAGAGGAG CCACCTGGGC TGGGAGAAGG TGCTTGGGCT TCTGCGGTGA
 1801 GGCAGGGGAG TCTGCTTGTC TTAGATGTTG GTGGTGCAGC CCCAGGACCA AGCTTAAGGA
 1861 GAGGAGAGCA TCTGCTCTGA GACGGATGGA AGGAGAGAGG TTGAGGATGC ACTGGCCTGT
 1921 TCTGTAGGAG AGACTGGCCA GA

(2) INFORMATION FOR SEQ ID NO:2435:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1687 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2435:

1 CCCAGCCCCG AGGCTCAGAA GCGGCAGGCG GAGGCGCGGT CCGGGCGCTA TGGCCATGCC
 61 CGGCGGGTCT CACGCGGCTG CCCCTCGCCC GCGCGCGCTT CGGTAGGGGG CGCCCGGGGC
 121 CCAGCTGGCC CGGCCATGCT GCTGGAGACA CAGGACGCGC TGTACGTGGC GCTGGAGCTG
 181 GTCATCGCCG CGCTTTCGGT GCGGGGCAAC GTGCTGGTGT GCGCCGCGGT GGGCACGGCG
 241 AACACTCTGC AGACGCCCCA CAACTACTTC CTGGTGTCCC TGGCTGCGGC CGACGTGGCC
 301 GTGGGGCTCT TCGCCATCCC CTTTGCCATC ACCATCAGCC TGGGCTTCTG CACTGACTTC
 361 TACGGCTGCC TCTTCTCGC CTGCTTCGTG CTGGTGTCTA CGCAGAGCTC CATCTTCAGC
 421 CTCTGGCCG TGGCAGTCGA CAGATACCTG GCCATCTGTG TCCCGCTCAG GTATAAAAGT
 481 TTGCTCACGG GGACCCGAGC AAGAGGGGTC ATTGCTGTCC TCTGGGTCCT TGCCTTTGGC
 541 ATCGGATTGA CTCCATTCCCT GGGGTGGAAC AGTAAAGACA GTGCCACCAA CAACTGCACA
 601 GAACCTGGG ATGGAACCAC GAATGAAAGC TGCTGCCTTG TGAAGTGTCT CTTTGAAGT
 661 GTGGTCCCCA TGAGCTACAT GGTATATTTT AATTTCTTTG GGTGTGTCTT GCCCCCACTG
 721 CTTATAATGC TGGTGATCTA CATTAAAGAT TTCCTGGTGG CCTGCAGGCA GCTTCAGCGC
 781 ACTGAGCTGA TGGACCACTC GAGGACCACC CTCCAGCGGG AGATCCATGC AGCCAAGTCA
 841 CTGGCCATGA TTGTGGGGAT TTTTGCCCTG TGCTGGTTAC CTGTGCATGC TGTTAACTGT
 901 GTCACTCTTT TCCAGCCAGC TCAGGGTAAA AATAAGCCCA AGTGGGCAAT GAATATGGCC
 961 ATTCTTCTGT CACATGCCAA TTCAGTTGTC AATCCATTG TCTATGCTTA CCGGAACCGA
 1021 GACTTCCGCT ACACCTTTTCA CAAAATTATC TCCAGGTATC TTCTCTGCCA AGCAGATGTC
 1081 AAGAGTGGGA ATGGTCAGGC TGGGTACAG CCTGCTCTCG GTGTGGGCCT ATGATCTAGG
 1141 CTCTCGCCTC TTCCAGGAGA AGATACAAAT CCACAAGAAA CAAAGAGGAC ACGGCTGGTT
 1201 TTCATTGTGA AAGATAGCTA CACCTCACAA GGAAATGGAC TGCCTCTCTT GAGCACTTCC
 1261 CTGGAGCTAC CACGTATCTA GCTAATATGT ATGTGTCAGT AGTAGACCA AGGATTGACA
 1321 AATATATTTA TGATCTATTC AGCTGCTTTT ACTGTGTGGA TTATGCCAAC AGCTTGAATG
 1381 GATTCTAACA GACTCTTTTG TTTTAAAAG TCTGCCTTGT TTATGGTGGG AAATTACTGA
 1441 AACTATTTTA CTGTGAAACA GTGTGAACTA TTATAATGCA AATACTTTT AACTTAGAGG
 1501 CAATGGAAAA ATAAAAGTTG ACTGTACTAA AAATGTATAC TTGTTGCCAG GAAGGTGACC
 1561 TCAAAAATTA AAAGTATAAT TATTCGGCCG GGCATGGTGG CTCACACCTG TAATTCCAGC
 1621 ACTTTGGGAG GCCAAGGCAG GCGATCACG AGGTCAGGAG TTCAAAACCA GCCTGTCCAA
 1681 TATAGTG

(2) INFORMATION FOR SEQ ID NO:2436:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1733 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2436:

1 GGGCAATTTG TTAGTTATCC GCCGCCACCA AGACGCGGCA CGGCGCCTGG ACCGGAGGGG
 61 CCCCGCGCGG GCGCGAACTT TGGGCTCGGG CGAGTGGGTG GTGCTCCGCC CAGCCCAGAG
 121 CGGGCGGGCG CGCGGGCCAA TGGGTGCCGC CTCTTGGCCG CGGGGGGCCC CGACCCGTGG
 181 GTCCCGGCCA CCAGCGCCCC AGCCCCGAGG CTCAGAAGCG GCAGGCGGAG GCGCGGTCCG
 241 GCGCTATGG CCATGCCCCG CGGGTCTCAC GCGGTGCCC CTGCCCCGGC GCGCCTTCGG
 301 TAGGGGGCGC CCGGGGCCCA GCTGGCCCCG CCATGCTGCT GGAGACACAG GACGCGCTGT
 361 ACGTGGCGCT GGAGCTGGTC ATCGCCGCGC TTTCGGTGGC GGGCAACGTG CTGGTGTGCG
 421 CCGCGGTGGG CACGGCGAAC ACTCTGCAGA CGCCACCAA CTACTTCTG GTGTCCCTGG
 481 CTGCGGCCGA CGTGGCCGTG GGGTCTTCG CCATCCCCTT TGCCATCACC ATCAGCCTGG

541 GCTTCTGCAC TGACTTCTAC GGCTGCCTCT TCCTCGCCTG CTTCTGTGCTG GTGCTCACGC
601 AGAGCTCCAT CTTACGCCTT CTGGCCGTGG CAGTCGACAG ATACCTGGCC ATCTGTGTCC
661 CGCTCAGGTA TAAAAGTTTG GTCACGGGGA CCCGAGCAAG AGGGGTCAAT GCTGTCTCT
721 GGGTCTTGC CTTTGGCATC GGATTGACTC CATTCCTGGG GTGGAACAGT AAAGACAGTG
781 CCACCAACAA CTGCACAGAA CCCTGGGATG GAACCACGAA TGAAAGCTGC TGCCTTGTGA
841 AGTGCTCTTT TGAGAATGTG GTCCCCATGA GCTACATGGT ATATTTCAAT TTCTTTGGGT
901 GTGTTCTGCC CCCACTGCTT ATAATGCTGG TGATCTACAT TAAGATCTTC CTGGTGGCCT
961 GCAGGCAGCT TCAGCGCACT GAGCTGATGG ACCACTCGAG GACCACCCTC CAGCGGGAGA
1021 TCCATGCGAG CAAGTCACTG GCCATGATTG TGGGGATTTT TGCCTGTGC TGGTTACCTG
1081 TGCATGCTGT TAACTGTGTC ACTCTTTTCC AGCCAGCTCA GGTGAAAAAT AAGCCCAAGT
1141 GGGCAATGAA TATGGCCATT CTTCTGTAC ATGCCAATTC AGTTGTCAAT CCCATTGTCT
1201 ATGCTTACCG GAACCGAGAC TTCCGCTACA CTTTTCACAA AATTATCTCC AGGTATCTTC
1261 TCTGCCAAGC AGATGTCAAG AGTGGGAATG GTCAGGCTGG GGTACAGCCT GCTCTCGGTG
1321 TGGGCTATG ATCTAGGCTC TCGCCTCTC CAGGAGAAGA TACAAATCCA CAAGAAACAA
1381 AGAGGACACG GCTGGTTTTC ATTGTGAAAG ATAGCTACAC CTCACAAGGA AATGGACTGC
1441 CTCTCTTGAG CACTTCCCTG GAGCTACCAC GTATCTAGCT AATATGTATG TGTCAAGTAGT
1501 AGGCTCCAAG GATTGACAAA TATATTATG ATCTATTGAG CTGCTTTTAC TGTGTGGATT
1561 ATGCCAACAG CTTGAATGGA TTCTAACAGA CTCTTTTGT TTTAAAAGTC TGCCTTGTTC
1621 ATGTGGAAGA ATTACTGAAA CTATTTTACT GTGAAACAGT GTGAACATAT ATAATGCAAA
1681 TACTTTTAA CTTAGAGGCA ATGGAAAAAT AAAAGTTGAC TGTACTAAAA ATG

(2) INFORMATION FOR SEQ ID NO:2437:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2470 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2437:

1 GAATPCCCAG ATGGGCAGAG GTGGCTGGGC TGGTGACCTT AAGTGTGTCT CCTGCCTTTA
61 TTCTCTCTAG TGGGTTATTC TTTCATGTGG TATCTTGCCT ACAGCATGCT GTGTTTGGAC
121 ACAACCCCTT TCCCTTGGTT TCTCTGACCC AGCTGAGATG GACTGATGCC AAAAGAATC
181 ACCTATGTAC TGGGGTAGGG GAGGGAGGGT TTTTTCAGT ATTTAACTAA GGTTCAAAGA
241 GTGCTATATA GTGAGAAAGG CTTCTTTTTT TTTTTTTTTT TTTTTTGGCA GAGTGCTGCC
301 TCCCTAGAAAT TTCTCTTGGT AACTTCCTTC TCTGAAGCAC AGATAAAGAA AACAATATCA
361 GTAGAAACAT TTATGAGGGA CACATTGGAG GCCGATGAAG CTTTTCAAGT TCCAGCAGTG
421 CAGGGATGTG GGCAGAACTG ACATTGGAAG AACTAGAAAT GATGGAATTT CAGTTGGAGA
481 GGAATGCCCT TTTTAATGTC TGGGGAGTCT GCTCAGGGAG AAATGACAAG TCTGGCGGGG
541 ACAAGTATGG GATTGGTAA GACTTGGATC AACTTGGGAT ACAGGGTGGG GGTGGGGAGT
601 GGAATCAATG AATGATGCCA GAGCAGATCA ACTAACAGA GGACCTGAT GAGCCCGAGG
661 CAGAGGCGTC TCCCTTATGC CCCACTCTGA AGTGTTCGTT AGTAAACACC AGAACGCCAT
721 TGTGTGTAAT GCTGAATTTT ATTTTGGGCT GTACATATTT AGATGCTTAA GGTAAAAATG
781 ATAAAGCCCT CAAGCCACTG TGTGGGTTTG GGTCCAAGTG TTCCCTCTTG CTGCCTCTCT
841 AACACGCCCT GTTAAATAAA TCCCTTGGGA TGGTGCTGAG AAGCACCTGA ACCAAGTGGG
901 TCCCCAAATA ACAATGGCGT GCAAGTGTCT GGTTCACAGA AGTTGGTGAC TAGGTAAGCA
961 GCTTCAGGGA GAGGGGGCTG ATTCCAGAC AGTCGCCTGT TCCTGCGGGG ATGGGGCTGA
1021 GGCTTGGGGA ATGTGGGCGA GAGGATATGC CATTTGATTC TGTGTCACAC GTTCTTTTCC
1081 CTTCTTTCTG TATGTCTGGT CATTCTGCTA TTCTGTCTGT CCTCACATAG GTTGGACATT
1141 GGCGGGCTGC CAGCATAAGT GCCAGTGTGA TTTTGCTAGG TGTGAGCTGA GAAAGAGAGG
1201 TGGAGGCTAA GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGCCTCT TCTGAGCAGG
1261 GAATCTTTGC TTATCCCTTT GACCAAGGAT CTTTGTCTGA AAGGCTGGGT ATCGGCTGTG
1321 CTCAGCAAAG CGTCAACTCG TGCAAGAACT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA
1381 GGCTGCCACC AAAGTCTCTT TTTTGTTCCT CTGCTTCTCC CGTTTGCTCT CTTATCATGA
1441 GATCTTTTTT CTAAGCTGGC AGAAAGATTG CATAGTCAGT GCTTCCAGCT CTGCTCCAC
1501 CTGATCCTGC ACTGTCCTCT GGTCCCTGAA TGAATGAAT CTGATACCCA ATCTTGTCTC
1561 GAGCCTTCTC TATGCCACTC ATGGCTCCTC TTCTGTCTCT TCCATCTTTT TGCTGAGAGT
1621 TCTGAGCTCT GTACTTCCTC TTGGCCCATC TCACTTCCTG AAACACCCCT GAAGAGGGTT
1681 GCTTATCTTG ATGGAACCA AAAAGCCAAA AAGCTGCAGG CAGAGGCGTT GAGGACATCT
1741 GTTTGGGGAA CTAAGAGCAG CAGCACTTTC AGATTGAGT CATATAGAGC TGTCTACAG
1801 CATTCTGGAA ACTTGAGGAT GTGCGGTGCA TAAAGGGGCT GGAAGTGACC CACCTGTGAT
1861 GAGCCCTTTC TAAGGAGAAG GGTTCCTAAG AGATCACCCC ACCAGAAAAG GGTAGGAATG
1921 AGCAAGTTGG GAATTTTAGA CTGTCACTGC ACATGGACCT CTGGGAAGAC GTCTGGCGAG
1981 AGCTAGGCCC ACTGGCCCTA CAGACGGATC TTGCTGGCTC ACCTGTCCCT GTGGAGGTTT

2041 CCCTGGGAAG GCAAGATGCC CAACAACAGC ACTGCTCTGT CATTGGCCAA TGTTACCTAC
 2101 ATCACCATGG AAATTTTCAT TGGACTCTGC GCCATAGTGG GCAACGTGCT GGTCACTCTGC
 2161 GTGGTCAAGC TGAACCCAG CCTGCAGACC ACCACCTTCT ATTTTCATTGT CTCTCTAGCC
 2221 CTGGCTGACA TTGCTGTTGG GGTGCTGGTC ATGCCTTTGG CCATTGTTGT CAGCCTGGGC
 2281 ATCACAATCC ACTTCTACAG CTGCCTTTT ATGACTTGCC TACTGCTTAT CTTTACCCAC
 2341 GCCTCCATCA TGTCTTGCT GGCCATCGCT GTGGACCGAT ACTTGGGGGT CAAGCTTACC
 2401 GTCAGGTAGC CTGCGCGGTG GGGTGGGCAG CAATTGAGGC AGCTGGGAAA TGAGGCTACA
 2461 AAGCCAGAGC

(2) INFORMATION FOR SEQ ID NO:2438:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1350 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2438:

1 CTGCTGAATT TTATTTTGGG CTGTACATAT TTAGATGCTT AAGGTAAGCC TGATAAAGCC
 61 CTCAAGCCAC TGTGTGGGTT GGGTCCAAGT GTTCCTTGCT GCTGCCTCTC TAACACGCCT
 121 GGTAAAATA ATCCCTTTGG ATGGTGCTGA GAAGCACCTG AACCAAGTGG GTCCCAAAAT
 181 AACTATGGCG TGCAAGTGTC TGGTTCCCAG AAGTTGGTGA CTAGGTAAGC GACTCAGGGA
 241 GAGGGGCTGA TTCCAGACA GTCGCCTGTT CCTGCTGGGA TGGGGCTGAG GCTTGGGGAA
 301 TGTGGGCAGG AGGATATGCC ATTTGATTCT GTTGACACAG TTCTTTTCCC TTCTTTCTGT
 361 ATGTCTGGTC ATTCTGCTAT TCTGTCGTTT CTCACATAGG TTGGACATTG GCCGGCTGCC
 421 AGCATAAGTG CCAGTGTGAT TTTGCTAGGG TGTGAGCTGA GAAAGAGAGG TGGAGGCTAA
 481 GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGGCCCT TCTGAGCAGG GAATCTTTGC
 541 TTATCCCTTT GACCAAGGAT CTTTGCTCCA AAGGCTGGGT ATCGGCTGTG CTCAGCAAAG
 601 CGTCAACTCG TGCAAGAAGT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA GGCTGCCACC
 661 AAAGTCTCTT TTTTGTTCCT CTGCTTCTCC CGTTTGCTCT CTTATCATGA GATCTTTTGT
 721 CTAAGCTGGC AGAAAGATTG CATAATCAGT GCTTCCAGCT CCCTCCCAC CTGATCCTGC
 781 ACTGTCTCTT GGTCCCTGAA TGAATGAAGT CTGATACCCA ATCTTGCTCTC GAGCCTTCTC
 841 TATGCCACTC ATGGCTCCTC TTCTGCTCTT TCCATCTTTT TGCTGAGAGT TACTGAGCTC
 901 TGTACTTCCT CTTGGCCCAT CTCACTTCCT GAAACACCCC TGAAGAGGGT TGCTTATCTT
 961 GATGGAAGTC AAAAAGCCAA AAAGCTGCAG GCAGAGGCGT TGAGGACATC TGTTTGGGGA
 1021 ACTAAGAGCA GCAGCACTTT CAGATTGAGT CCATATAGAG CTGTCCTACA GCATTCTGGA
 1081 AACTTGAGGA TGTGCGGTGC ATAAAGGGGC TGGAAGTGAC CCACCTGTGA TGAGCCCTTT
 1141 CTAAGGAGAA GGGTTTCCAA GAGATACCCC CACCAGAAAA GGGTAGGAAT GAGCAAGTTG
 1201 GGAATTTTAG ACTGTCACTG CACATGGACC TCTGGGAAGA CGTCTGGCGA GAGCTAGGCC
 1261 CACTGGCCCT ACAGACGGAT CTTGCTGGCT CACCTGTCCC TGTGGAGGTT CCCCTGGGAA
 1321 GGCAAGATGC CCAACAACAG CACTGCTCTG

(2) INFORMATION FOR SEQ ID NO:2439:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1771 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2439:

1 CGAATTCGGG GGACATCTGT TTGGGGAAGT AAGAGCAGCA GCACTTTCAG ATTCAGTCCA
 61 TATAGAGCTG TCCTACAGCA TTCTGGAAAC TTGAGGATGT GCGGTGCATA AACGGGCTGG
 121 AAGTGACCCA CCTGTGATGA GCGCTTTCTA AGGAGAAGGG TTTCCAAGAG ATCAGCCAC
 181 CAGAAAAGGG TAGGAATGAG CAAGTTGGGA ATTTTAGACT GTCAGTGCAC ATGGACCTCT
 241 GGGAGACGCT CTGGCGAGAG CTAGGCCAC TGGCCCTACA GACGGATCTT GCTGGCTCAC
 301 CTGTCCCTGT GGAGGTTCCC CTGGGAAGGC AAGATGCCCA ACAACAGCAC TGCTCTGTCA
 361 TTGGCCAATG TTACCTACAT CACCATGGAA ATTTTCATTG GACTCTGCGC CATAGTGGGC
 421 AACGTGCTGG TCATCTGCGT GGTCAAGCTG AACCCAGGCC TGCAGACCAC CACCTTCTAT
 481 TTCATTGTCT CTCTAGCCCT GGCTGACATT GCTGTTGGGG TGCTGGTCAT GCCTTTGGCC
 541 ATTGTTGTCA GCCTGGGCAT CACAATCCAC TTCTACAGCT GCCTTTTAT GACTTGCTTA
 601 CTGCTTATCT TTACCCACGC CTCCATCATG TCCTTGCTGG CCATCGCTGT GGACCGATAC
 661 TTGCGGGTCA AGCTTACCGT CAGATACAAG AGGGTCACCA CTCACAGAAG AATATGGCTG
 721 GCCCTGGGCC TTTGCTGGCT GGTGTCATTG CTGGTGGGAT TGACCCCAT GTTTGGCTGG
 781 AACATGAAAC TGACCTCAGA GTACCACAGA AATGTACCT TCCTTTCATG CCAATTTGTT
 841 TCCGTCATGA GGATGGACTA CATGGTATAC TTCAGCTTCC TCACCTGGAT TTTCATCCCC
 901 CTGGTTGTCA TGTGCGCCAT CTATCTTGAC ATCTTTTACA TCATTCGGAA CAACTCAGT

961 CTGAACTTAT CTAACCTCAA AGAGACAGGT GCATTTTATG GACGGGAGTT CAAGACGGCT
1021 AAGTCCTTGT TTCTGGTTCT TTTCTTGTTT GCTCTGTCAT GGCTGCCTTT ATCTCTCATC
1081 AACTGCATCA TCTACTTTAA TGGTGAGGTA CCACAGCTTG TGCTGTACAT GGGCATCCTG
1141 CTGTCCCATG CCAACTCCAT GATGAACCCT ATCGTCTATG CCTATAAAAT AAAGAAGTTC
1201 AAGGAAACCT ACCTTTTGAT CCTCAAAGCC TGTGTGGTCT GCCATCCCTC TGATTCTTTG
1261 GACACAAGCA TTGAGAAGAA TTCTGAGTAG TTATCCATCA GAGATGACTC TGTCTCATTG
1321 ACCTTCAGAT TCCCATCAA CAAACACTTG AGGGCCTGTA TGCCTGGGCC AAGGGATTTT
1381 TACATCCTTG ATTACTTCCA CTGAGGTGGG AGCATCTCCA GTGCTCCCCA ATTATATCTC
1441 CCCCCTCCA CTACTCTCTT CCTCCACTTC ATTTTTCCTT TGTCTTCTCT CTCTAATCA
1501 GTGTTTGGGA GGCCTGACTT GGGGACAAAG TATTATGTAT ATTATTGTCT GTTTTCCTTC
1561 TTCCAATAG AAGAATAAGT CATGGAGCCT GAAGGGTGCC TAGTTGACTT ACTGACAAAA
1621 GGCTCTAGTT GGGCTGAACA TGTGTGTGGT GGTGACTCAT TTCCATGCCA TTGTGGAATT
1681 GAGCAGAGAA CCTGCTCTCG GAGGATGCCT AGGAGATGTT GGGAACAGAA GAAATAAACT
1741 GAGTTTAAGG GGGACTTAA CTGCTGAATT C

(2) INFORMATION FOR SEQ ID NO:2440:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2100 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2440:

1 GCCGCCGCCG CCAAGATGGC GGACCTGGAG GCGGTGCTGG CCGACGTGAG CTACCTGATG
61 GCCATGGAGA AGAGCAAGGC CACGCCGGCC GCGCGCGCCA GCAAGAAGAT ACTGCTGCCC
121 GAGCCAGCA TCCGAGTGT CATGCAGAAG TACCTGGAGG ACCGGGGCGA GGTGACCTTT
181 GAGAAGATCT TTTCCAGAA GCTGGGGTAC CTGCTCTTCC GAGACTTCTG CCTGAACCAC
241 CTGGAGGAGG CCAGGCCCTT GGTGGAATTC TATGAGGAGA TCAAGAAGTA CGAGAAGCTG
301 GAGACGGAGG AGGAGCGTGT GGCCCGCAGC CGGGAGATCT TCGACTCATA CATCATGAAG
361 GAGCTGCTGG CCTGCTCGCA TCCCTTCTCG AAGAGTGCCA CTGAGCATGT CCAAGGCCAC
421 CTGGGGAAGA AGCAGGTGCC TCCGGATCTC TTCCAGCCAT ACATCGAAGA GATTTGTCAA
481 AACCTCCGAG GGGACGTGTT CCAGAAATTC ATTGAGAGCG ATAAGTTCAC ACGGTTTTCG
541 CAGTGAAGA ATGTGGAGCT CAACATCCAC CTGACCATGA ATGACTTCAG CGTGATCGC
601 ATCATTGGGC GCGGGGGCTT TGGCGAGGTC TATGGGTGCC GGAAGGCTGA CACAGGCAAG
661 ATGTACGCCA TGAAGTGCTT GGACAAAAG CGCATCAAGA TGAAGCAGGG GGAGACCTG
721 GCCCTGAACG AGCGCATCAT GCTCTCGTC GTCAGCACTG GGGACTGCCC ATTCATTGTC
781 TGCAATGTCAT ACGCGTTCCA CACGCCAGAC AAGCTCAGCT TCATCCTGGA CCTCATGAAC
841 GGTGGGGACC TGCACTACCA CCTCTCCCAG CACGGGTCTT TCTCAGAGGC TGACATGCGC
901 TTCTATGCGG CCGAGATCAT CCTGGGCCTG GAGCAGATGC ACAACCGCTT CGTGGTCTAC
961 CGGGACCTGA AGCCAGCCAA CATCCTTCTG GACGAGCATG GCCACGTGCG GATCTCGGAC
1021 CTGGGCCTGG CCTGTGACTT CTCCAAGAAG AAGCCCCATG CCAGCGTGGG CACCCACGGG
1081 TACATGGCTC CGGAGGTCTT GCAGAAGGGC GTGGCTACG ACAGCAGTGC CGACTGGTTC
1141 TCTCTGGGGT GCATGCTCTT CAAGTTGCTG CGGGGACACA GCCCCTTCCG GCAGCACAAG
1201 ACCAAAGACA AGCATGAGAT CGACCGCATG ACGCTGACGA TGGCCGTGGA GCTGCCCGAC
1261 TCCTTCTCCC CTGAATACG CTCCTGCTG GAGGGGTTGC TGCAGAGGGA TGTCAACCGG
1321 AGATTGGGCT GCCTGGGCCG AGGGGCTCAG GAGGTGAAAG AGAGCCCTT TTTCCGCTCC
1381 CTGGAATGGC AGATGGTCTT CTTGCAGAAG TACCCTCCCC CGCTGATCCC CCCACGAGGG
1441 GAGGTGAACG CGGCCGACGC CTTCGACATT GGCTCCTTCG ATGAGGAGGA CACAAAAGGA
1501 ATCAAGTTAC TGGACAGTGA TCAGGAGCTC TACCGCACT TCCCCCTCAC CATCTCGGAG
1561 CGGTGGCAGC AGGAGGTGGC AGAGACTGTC TTCGACACCA TCAACGCTGA GACAGACCGG
1621 CTGGAGGCTC GCAAGAAAGC CAAGAACAAG CAGCTGGGCC ATGAGGAAGA CTACGCCCTG
1681 GGCAAGGACT GCATCATGCA TGGCTACATG TCCAAGATGG GCAACCCCTT CCTGACCCAG
1741 TGGCAGCGGC GGTACTTCTA CCTGTTCCCC AACCGCTCG AGTGGCGGGG CGAGGGCGAG
1801 GCCCCGAGCA GCCTGCTGAC CATGGAGGAG ATCCAGTCCG TGGAGGAGAC GCAGATCAAG
1861 GAGCGCAAGT GCCTGCTCCT CAAGATCCGC GGTGGGAAAC AGTTCATTTT GCAGTGCGAT
1921 AGCGACCTG AGCTGGTGCA GTGGAAGAAG GAGCTGCGCG ACGCCTACCG CGAGGCCACG
1981 CAGTGGTGC AGCGGGTGCC CAAGATGAAG AACAAAGCCG GCTCGCCCGT GGTGGAGCTG
2041 AGCAAGGTGC CGCTGGTCCA GCGCGGCAGT GCCAACGGCC TCTGACCCGC CCACCCGCT

(2) INFORMATION FOR SEQ ID NO:2441:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7328 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2441:

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1  AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTTTAA ATGAATGCTT TAAGCCGGGT
61  GCAGTGCCCT ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTCG AGACCAACCT GCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGGT GACAGAGAGA GACTCCGTCT CAAAAAATAA AAAAAAATAA AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCACTGTT GAATTTTCTT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCCT TTCCCTCTGC AAACCTCCCTG CCTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTTGCAAGTG TCCAAACCTT GATCCCAGCT
541 GTGCTTAGGG GTTCTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCTCTG
601 TTTACCAACT CAGCTTTTGG TTTTAGTGTG TTTGAATTCC CTGAACAGAC CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAAGCTGG GATGTGGCAG ATCCGTGGCT ACATTCATGC ACACACACAC
781 ACCCACATAC CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTTCACAC CCCTTCCTAG ACAGGGGTCA CTGGGTATCC TGAGAGAGAT
901 GTGAAGTCCT GGAATGGAAA GAGGGGGGAT TAAGCCCCAC CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCCTTGTGT TTACCTCCTC TGTGAGGCAA GCACAGAGCC
1021 CATGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTGAG AGCAAGGGTC
1081 GGAATGGAA GGGCCTTGGG AAAAAAGGCC CTTTCAACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTAATTG GTAAGCCAAG CCCGAAGGGA CTGGAAATAC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCTGT CTCCATCACA
1261 GTGCTCCAGT CCAGACCCCT CCTCTGAGCT CCAGACCTCG CTGGACCAAA CCAGCCCTAT
1321 GGGGTGCGAT CCCACCTGCT CTGGAATTCT CCAAAGAACC TCCCCTTAA CAGTTCCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCTCTT AAATCAGCCC CCCATCTCTG
1441 CCTTTGCAGG AGATGGAAGC CATGACACCT GCCTCGCCCC TGTCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCATG TCAGGTTTAC CCTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTCTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATTC ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGCTCA
1741 CCCTCAGTGT TCTCATCAAT AATCCACTCC CCTCAGAGG CCGTTTTGGA CCCCATGTTC
1801 TATGCTCTCA CAGGACCTTT TGCTTGATTT TTCCTGTGAC TTAGGTCAGT TTGCAGTTAT
1861 TAAGTAGATG AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGCTCCTAGC CATTGTATAC
1921 CTAGCACCGC TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTTCTCC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCAGCCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCCAG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAAATGTTC TCTCCCTGGA AGATATCAAT GTTCTGTGCT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGGC TCTTTCAGGT GAGTCAAAGG GATTCTCAGT TTCACTAGTT AGGGGAGGTG
2221 GGCAGACACC CTGGAGAACT CCCTGGAAAG CTCAACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCAAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGCTC AGGGAGGAGA
2401 AGGGCACATT CCTGCTTGT ATATGTTTCT ATCTATCCCA GATGAAGTTG GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAAA GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC
2521 CTTGGAACA AAATATCTCC AACACATGGC TGACATTTGG TGGGAGATCA GAACACCCTA
2581 AAGAGAGAAT TTAAGGGGAG GGGGAGGAG ACCTGAGCCA GAGTAGAAGC AGAGGATAGG
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAACCT
2701 CTCCACCCTG CTGCAAGTGC TGCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGTCTTGC
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAGT TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGGACC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAGGAGG GTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGTTAT
3121 CTCTGTTCCA AGATGTCTGG GGCCTTGGTT GGAAGATTCA AAGGCTAGGA AACCAGGAGC
3181 CACCAAAGC GTAAGTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCACCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA GCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAAGT CCAGCCACAG TCCAGGAGAA GAGGAAGCAG ATTCCTCCTT
3421 TTGAAATGAA GAATATCAAG TAATTCGGGG GGCATATGAA AGCCACCACA CACCACAGGG
3481 ATCTTTTTAG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAG

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3541 CCTCACTTCC TTAGCACCCA GTGAAGACCA CGCTTACTCC CTCACTCAAC CTCTTGCTAC
 3601 TTCCCACCTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA CAGCTTCCCC
 3661 AGTTCTGTGC CTCTGCTCAG GCTGTTCCCC CTGCCTGGTC CACTTGTCCCT CCTTCTTGTC
 3721 CGGTCAAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACCTCCA ACCCCTTACC
 3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCCCT GCTCCCTCCA GGGCACCCCTC
 3841 CACCCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
 3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAAA ACATTTAAAG
 3961 GATAGAAGCA TTGATTGTG GGTCCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
 4021 TAGAAGCAAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCCGT
 4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
 4141 CCCTTTTCCCT TCTCTCAGCC ACAGCACAGG GCACTGGGAA AATGCCCAAT GAGTCTTGCC
 4201 TCTGGGTGTG GCTTTGGACT TTTCACTGTG TCTCGCATCC ACTCTTCAAC TTGAATGTTG
 4261 CAACAGCCAT GAAAAAGAA ATGCAAAGCG ATTCAAGGATG AGAGCAATAC CCTACTCCAA
 4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGCTAGGA
 4381 GTGGAACCTA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
 4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCTAAGAA TGAAGAGGA
 4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
 4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGC TGGGGCATTT
 4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGGTA GTGGTTTTAA CTGCCATGTT
 4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACTT CCCCAGCGTG ACACGGCTTA
 4741 TAAGTAAGGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAAG TCCCCACCCC
 4801 CCTCGCCATC TGTATCCTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
 4861 CACGATGCCA CAGACTGTCC AGGAAGACAG AAAGTAGGCA GATGGGCTGG CCATGGTCTC
 4921 CAAGCCAGAC TGAATCTCC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAATTAA
 4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCTG
 5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TCAAGGAGG TCAAGGGTCC
 5101 AACACTTGAG ATTGTTAGTG CTGTTGGTGG ATACTGGCCA AGGAAATATC CCAGTGAGC
 5161 CTCGAGATGA AGAACATGAG GCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAG
 5221 ACCCAGGGGA GTCAGGTGCA CTGGAGCGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
 5281 CGGCTTCTCC TTGTCCTGGC TGGTTGTCCT TAACCCTGT CTCCTTCTGG ACCAGTTTTT
 5341 GTCCTTCCCT TGTGACCGCT GAGGGTAAC AGCCTCTTTC CACTTTCTTT CAGCGCCGAC
 5401 ATGCTCAATG TCACCTTGCA AGGGCCCACT CTTAACGGGA CCTTTGCCCA GAGCAAATGC
 5461 CCCCAGTGG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCTTCCCT CTGGGTGCTG
 5521 TTCGTGCTGG CCACCCTAGA GAACATCTTT GTCCTCAGCG TCTTCTGCCT GCACAAGAGC
 5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCTGGCC
 5641 TGCGGGCTGC CCTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
 5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTTC
 5761 CTGATGCTGG TGAGCATCGA CCGCTACCTG GCCCTGGTGA AAACCATGTC CATGGCCCGG
 5821 ATGCGCGGCG TGGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
 5881 CTGAGCTCAC CCATGCTGGT GTTCCGGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
 5941 GTCACCGCTT GTGTCATCAG CTACCCATCC CTCATCTGGG AAGTGTTTAC CAACATGCTC
 6001 CTGAATGTCG TGGGCTTCCCT GCTGCCCTG AGTGTATCA CCTTCTGCAC GATGCAGATC
 6061 ATGCAGGTGC TGCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
 6121 GCCACGGTGC TAGTCCTGGT TGTGCTGCTG CTATTATCA TCTGCTGGCT GCCCTTCCAG
 6181 ATCAGCACCT TCCTGGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
 6241 CGCATCATCG ATGTAATCAC ACAGATCGCC CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
 6301 AACCCTCTGG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
 6361 CAGGGAGTGT GCCAGAAAGG GGGCTGCAGG TCAGAACCCA TTCAGATGGA GAACTCCATG
 6421 GGCACACTGC GGACCTCCAT CTCCGTGGAA CGCCAGATTC ACAAACCTGCA GGAAGTGGCA
 6481 GGGAGCAGAC AGTGAGCAAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATTGAGGG
 6541 ACAGTTGCTT TTCAGCATGG GCCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTGGG
 6601 AAATGAGTTG ATGTCTCCGG TAAAACACCG GAGACTAATT CCTGCCCTGC CCAATTTTGC
 6661 AGGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAAATCACA
 6721 ACAGCATTTAC TGTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
 6781 GAGGAGGCCCT GGGGGCAGGG AGAGGAGTGA CTGAGCTTCC CTCCCGTGTG TTCTCCGTCC
 6841 CTGCCCCAGC AAGACAACTT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
 6901 CTGAGTGCAC AAGTGAGTTG TTGCCCTGGG TTTCTTTAAT CTATTCAGCT AGAACTTTGA
 6961 AGGACAATTT CTTGCATTAA TAAAGGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
 7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
 7081 CAATAAGCAC ATATTGAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG
 7141 AAGAAAGAGA AGGAGCCATC TCCATCTTGA AGGAACTCAA AGACTCAAGT GGAACGACT
 7201 GGGCACTGCC ACCACCAGAA AGCTGTTTGA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA

7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTCACCAA TACTATTGCA CACCACCTGT
7321 CCTGCCTC

(2) INFORMATION FOR SEQ ID NO:2442:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 275 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2442:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC
121 TGAAGTGCCC ATGCCGCTTG CTCCGGAGAA GGTGGGTGCC GGGCAGGGGC TGCTCCAGCC
181 GCCTCACCTC TGCTGGGAGG ACAAAGTCTC CCAGCACAGA GGGAGGGAGG GAGGGCAGGC
241 AGCGGGGAGA AGTTTCCCTG TGGTCGTGGG GAGTT

(2) INFORMATION FOR SEQ ID NO:2443:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1464 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2443:

1 GAGCTCTTCA ATATTTTAGT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGAGCCTGT CCATAGACCT CTGTCCCCAA
121 CTGGCAAGTC AGGAACTCC AGATTAAGGA GCCCAATGT GGTGAACAG CCAGGTGCAC
181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCCATAAAC TGATCTGAGA CTCTGTTTCC
301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGGTTT GTAGGCTTGT TATGAATCAA
361 GTCACAGGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCCT CTGGCCCTCC TGTCTCTTCC
421 CCAGATCCAC TGGGCCCACT CTTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGCTCCT ACCGTCTCAG CCCTGGGAGT
541 GTAAAGTGCT GCAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
661 GCGCAAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTGCGCC TTGGGAGCCG
721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCCTGCCC ACCTGGCCAC CCTCTGTTTA
781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAAACCT AGACACAAAA TAACCACCTC
841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGGC
901 TTCCAGGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTTC GCCGTCCCAC GACTCCAACG
961 GGCAGCCGGG CCTACGCAA CATGGAATC TTCCAAGAGC CTCCCTGGCC CCCAGGGCTC
1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCGGGCCCCA CAGCCAGCCT
1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGGAAGT GCCCAGGAGG
1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCCGCCGCCA CTCCAGCTCT
1201 GGCTTCTGGG CTCCGAGGAG GGTGGGGAC GGTGGTGACG GTGGGGACAT CAGGCTGCCC
1261 CGCAGTACCA GGGAGCGACT GAAGTGCCCA TGCCGCTTGC TCCGAGAGAAG GTGGGTGCCG
1321 GGCAGGGGCT GCTCCAGCCG CCTCACCTCT GCTGGGAGGA CAACTGTCC CAGCACAGAG
1381 GGAGGGAGGG AGGGCAGGCA GCGGGGAGAA GTTCCCTGT GGTGCTGGGG AGTTGGGAAA
1441 AGTTCCCTTC CTTCCGAGG GAGG

(2) INFORMATION FOR SEQ ID NO:2444:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2599 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2444:

1 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
61 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
121 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGTAA AACACCGGAG
181 ACTAATTCTT GCCCTGCCCA ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAATCA
241 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
301 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGGAGGGAGA GGAGTGACTG
361 AGCTTCCCTC CCGTGTGTTT TCCGTCCTTG CCCCAGCAAG ACAACTTAGA TCTCCAGGAG

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421 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGCACAAG TGAGTTGTTG CCCTGGGTTT
481 CTTTAAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTAAAGCC
541 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCTT CACTGATGGA
601 CAAGGAGGTC TGTGCCAAAG AAGAATCCAA TAAGCACATA TTGAGCACTT GCTGTATATG
661 CAGTATTGAG CACTGTAGGC AAGACCCAAG AAAGAGAAGG AGCCATCTCC ATCTTGAAGG
721 AACTCAAAGA CTCAAGTGGG AACGACTGGG CACTGCCACC ACCAGAAAGC TGTTCGACGA
781 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
841 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCTT TTATGTAACA
901 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
961 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAACG GGATATGTTT ACTATAAGGA
1021 AAAGACACTG AGGTCTAGAA ATAGCTCCGT GGAGCAGAAT CAGTATTGGG AGCCGGTGGC
1081 GGTGTGAAGC ACCAGTGTCT GGCACACAGT AGGTGCTCAT TGGCTCCCTT CCACCTGTCA
1141 TTCCACCAC CCTGAGGCCC CAACCGCCAC ACACACAGGA GCATTTGGAG AGAAGGCCAT
1201 GTCTTCAAAG TCTGATTGTG GATGAGGCAG AGGAAGATAT TTCTAATCGG TCTTGCCAG
1261 AGGATCACAG TGCTGAGACC CCCCACCACC AGCCGTACC TGGGAAGGGG GAGAGTGCAG
1321 GCCTGCTCAG GGAAGTGTCC TGTCTCAGCA ACCAAGGGAT TGTTCTCTGC AATCAATGGT
1381 TTATTGGAAG GTGGCCAGT ATGAGCCCTA GAAGAGTGTG AAAAGGAATG GCAATGGTGT
1441 TCACCATCGG CAGTGCCAGG GCAGCACTCA TTCACTGAT AAATGAATAT TTATTAGCTG
1501 GTTGGAGAGC TAGAACCTGG AGAGCTAGAA CCTGGAGAAC TAGAACCTGG AGGGCTAGAA
1561 CCTGGAGAGG CTAGAACCAA GAAGGGCTAG AACCTGGAGG GGCTAGAACC TAGAGAAGCT
1621 AAAACCTGAG CTAGAAGCTG GAGGACTAGA ACCTGGAGGG CTGGAATCTG AAGGGCTAGA
1681 ACCTGGAGGG CTGGAATCTG GAGAGCTAGA ACCTGGAGGG CTAGAACCTG GAGGGCTAGA
1741 ACCTAGAAGG GCTAGAACCT GGAGGGCTGG AATCTGGAGA GCTAGAACCT GGAGGGCTAG
1801 AACCTGGAGG GCTAGAACCT AGAAGGGCTA GAACCTGGAG GGCTAGAACC TGGCAGGTTA
1861 GAACCTAGAA GGGCTAGAAC CTGGAGAGCC AGAACCTGGA GGGCTAGAAC CTGGAAGGGC
1921 TAGAACCTGT AGAGCTAGAA CATGGAGAGC TAGAACCCGG CAGGCTAGAA CCTGGCAAGC
1981 TAGAACCTGG AGGGAATGAA CCTGGAGGGC TAGAACCTGG AGAATGAGAA AAATTTACAT
2041 GGCAAAGAGC CCATAAATCC TGACCAATCC AACTCTGAAT TTTAAAGCAA AAGCGTGAAA
2101 AAAAAGATTC CCTCCTTACC CCCAACCCAC TCTTTTTCCT CACCACCCAC TCTCCTCTGC
2161 CTCAGTAAGT ATCTGAGGGA AGAAAACAGG TGAAAGAAGA AGTAAAAACC ATTTAGTATT
2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAAGGC AAAAAAGGC
2281 TGTGTTTTGT CACACAGGGC AGTCATTGAG CACCAGAGCA CGTGATGGTC TGAGACTCTC
2341 TTAGGAGCAG AGCTCTGCCG CAATGGCCAT GTGGGGATCC ACACCTGGTC TGAGGGGCAA
2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
2461 TGTCTGTGTA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATTT CACATCCAAA
2521 CGAGAAAATC ATGTAAACAT GTGTCTTTTC TGTAGAGCAT AATAATGGA TGAGGTTTTT
2581 GCAAAAAAAA AAAAAAAA

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(2) INFORMATION FOR SEQ ID NO:2445:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7328 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2445:

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1 AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTTTAA ATGAATGCTT TAAGCCGGGT
61 GCAGTGCCTC ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTTC AGACCAACCT GGCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGGT GACAGAGAGA GACTCCGTCT CAAAAAAGAA AAAAAAAGAA AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCACTGTT GAATTTTCTT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCCT TTCCCTCTGC AAATCCCTG CCTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTTGCAAGTG TCCAAACCTT GATCCCAGCT
541 GTGCTTAGGG GTTCTTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCCTG
601 TTTACCAACT CAGCTTTTTC TTTTAGTGTG TTTGAATTCC CTGAACTGAC CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAAGCTGG GATGTGGCAG ATCCGTGGCT ACATTCATGC ACACACACAC
781 ACCACATACA CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTTCCACA CCCTTCCTAG ACAGGGGTCA CTTGGTATCC TGGAGAGAGT
901 GTGAAGTCCT GGAATGGAAA GAGGGGGGAT TAAGCCCACT CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCGCCTTGT TTACCTCCTC TGTGAGGCAA GCACAGAGCC

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1021 CATGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTCAG AGCAAGGGTC
1081 GGGAAATGGAA GGCCCTTGGG AAAAAAGGCC CTTTCAACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTAATTG GTAAGCCAAG CCCGAAGGGA CTGGAATAC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCCTGT CTCCATCACA
1261 GTGCTCCAGT CCAGACCCTT CCTCTGAGCT CCAGACCCTG CTGGACCCAA CCAGCCCTAT
1321 GGGGTGCGAT CCCACCTGCG CTGGAATTCT CCAAAGAACC TCCCCTTTAA CAGTTCCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCTCTT AAATCAGCCC CCCATCTCTG
1441 CCTTTGCAGG AGATGGAAGC CATGACACCT GCCTCGCCCC TGTCCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCATG TCAGGTTTAC CCTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTCTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATTC ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGCTCA
1741 CCCTCAGTGT TCTCATCAAT AATCCACTCC CCTCACAGGC GCGTTTGGGA CCCCATGTTT
1801 TATGCTCTCA CAGGACCTTT TGCTTGATT TTTACTGTAC TTAGGTGAGT TTGAGTTAT
1861 TAAGTGACTG AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGCTCCTAGC CATTGTATAC
1921 CTAGCACCGC TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTCTCTC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCAGGCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCCAG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAAATGTTT TCTCCCTGGA AGATATCAAT GTTCTCTGCT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGCC TCTTTCAGGT GAGTCAAAGG GATTCCCTCAG TTTACTAGTT AGGGGAGGTG
2221 GCGAGACACC CTGGAGAACT CCCTGGAAG CTTCACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGCTC AGGGAGGAGA
2401 AGGGCACATT CCTGGTTGTT ATATGTTTCT ATCTATCCCA GATGAAGTTG GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAATA GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC
2521 CTTGGAAACA AAATATCTCC AACACATGGC TGACATTGGG TGGGAGATCA GAACACCTTA
2581 AAGAGAGAAT TTAAGGGGAG GGGGAGGAGG ACCTGAGCCA GAGTAGAAGC AGAGGATAGG
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAACCT
2701 CTCCACCCTG CTGCAGGTGC TGCCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGTCTTGC
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAGT TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGGACC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAGGAGG CTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGCTTAT
3121 CTCTGTTTCA AGATGTCTGG GGCCTTGGTT GGAAGATTCA AAGGCTAGGA AACCAGGAGC
3181 CACCAAAAGC GTAACCTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCACCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA GCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAAGT CCAGCCACAG TCCAGGAGAA GAGGAAGCAG ATTCCTCCTT
3421 TTGAAATGAA GAATATCAAG TAATTCGGG GGCATATGAA AGCCACCACA CACCAGGG
3481 ATCTTTTATG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAG
3541 CCTCACTTCC TTAGCACCCA GTGAAGACCA CGCTTACTCC CTCACTCAAC CTCTTGCTAC
3601 TTCCACCTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA CAGCTTCCCC
3661 AGTTCTGTGC CTCTGCTCAG GCTGTTCCCC CTGCCTGGTC CACTTGCTCT CTTCTCTGTC
3721 CGGTCAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACCTCCA ACCCCTTACC
3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCTCT GCTCCCTCCA GGGCACCTC
3841 CACCCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAAA ACATTTAAAG
3961 GATAGAAGCA TTGATTTGTG GGTCCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
4021 TAGAAGCAAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCCGT
4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
4141 CCTTTTCTCT TCTCTCACC ACAGCACAGG GCACTGGGAA AATGCCCAAT GAGTCTGCTC
4201 TCTGGGTTGT GCTTTGGACT TTTCAAGTGT TCTCGCATCC ACTCTTCAAC TTGAATGTTG
4261 CAACAGCCAT GAAAAAGAA ATGCAAGCG ATTCAGGATG AGAGCAATAC CCTACTCCAA
4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGCTAGGA
4381 GTGGAATCA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCCTAAGAA TGAAAGAGGA
4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGCG TGGGGCATTT
4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGGTA GTGGTTTTAA CTGCCATGTT
4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACTT CCCCAGCGTG ACACGGCTTA

4741 TAAGTAAGGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAAG TCCCCACCCC
4801 CCTCGCCATC TGTATCCTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
4861 CACGATGCCA CAGACTGTCC AGGAAGACAG AAAGTAGGCA GATGGGCTGG CCATGGTCTC
4921 CAAGCCAGAC TGGAATCTCC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAAATTAA
4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCCG
5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TTCAAGGAGG TCAAGGGTCC
5101 AACACTTGAG ATTGTTAGTG CTGTTGGTGG ATACTGGCCA AGGAAATATC CCAGTGAGGC
5161 CTCGAGATGA AGAACATGAG GCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAG
5221 ACCCAGGGGA GTCAGGTGCA CTGGAGCGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
5281 CGGCTTCTCC TTGTCCTGGC TGTTTGTCTT TAACCCCTGT CTCCTTCTGG ACCAGTTTTT
5341 GTCCTTCCCT TGTGACCGCT GAGGGGTAAC AGCCTCTTTC CACTTTCTTT CAGCGCCGAC
5401 ATGCTCAATG TCACCTTGCA AGGGCCCACT CTTAACGGGA CCTTTGCCCA GAGCAAATGC
5461 CCCCAGGTGG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCCTTCCCT CTGGGTGCTG
5521 TTCGTGCTGG CCACCCTAGA GAACATCTTT GTCCTCAGCG TCTTCTGCCT GCACAAGAGC
5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCCTGGCC
5641 TGCGGGCTGC CCTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTTC
5761 CTGATGCTGG TGAGCATCGA CCGCTACCTG GCCCTGGTGA AAACCATGTC CATGGGCCGG
5821 ATGCGCGGCG TGCGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
5881 CTGAGCTCAC CCATGCTGGT GTTCCGGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
5941 GTCACCGCTT GTGTCATCAG CTACCCATCC CTCATCTGGG AAGTGTTTAC CAACATGCTC
6001 CTGAATGTCG TGGGCTTCCCT GCTGCCCCTG AGTGTATCA CCTTCTGCAC GATGCAGATC
6061 ATGCAGGTGC TGCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
6121 GCCACGGTGC TAGTCCTGGT TGTGCTGCTG CTATTTCATCA TCTGCTGGCT GCCCTTCCAG
6181 ATCAGCACCT TCTTGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
6241 CGCATCATCG ATGTAATCAC ACAGATCGCC TCCTTCATGG CCTACAGCAA CAGCTGCCTC
6301 AACCCACTGG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
6361 CAGGGAGTGT GCCAGAAAGG GGGCTGCAGG TCAGAACCCA TTCAGATGGA GAACTCCATG
6421 GGCACACTGC GGACCTCCAT CTCCGTGGAA CGCCAGATTC ACAAACCTGCA GGACTGGGCA
6481 GGGAGCAGAC AGTGAGCAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATTGAGGG
6541 ACAGTTGCTT TTCAGCATGG GCCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTTGGG
6601 AAATGAGTTG ATGTCTCCGG TAAAACACCG GAGACTAATT CCTGCCCTGC CCAATTTTGC
6661 AGGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAAATCACA
6721 ACAGCATTAC TGTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
6781 GAGGAGGCTT GGGGGCAGG AGAGGAGTGA CTGAGCTTCC CTCCCGTGTG TTCTCCGTCC
6841 CTGCCCCAGC AAGACAATT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
6901 CTGAGTGCAC AAGTGAGTTG TTGCCCTGGG TTCTTTAAT CTATTACAGT AGAACTTTGA
6961 AGGACAATTT CTGTCATTAA TAAAGGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
7081 CAATAAGCAC ATATGTAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG
7141 AAGAAAGAGA AGGAGCCATC TCCATCTTGA AGGAACTCAA AGACTCAAGT GGAACGACT
7201 GGGCACTGCC ACCACCAGAA AGCTGTTTCA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA
7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTACCAA TACTATTGCA CACCACCTGT
7321 CTGCCTC

(2) INFORMATION FOR SEQ ID NO:2446:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2239 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2446:

1 CTGCAGAAAA CAGCCTGAGC TCCACCTCGG CTCTCCTTG CCCTGGCTGG TTGTCCTTAA
61 CCCCTGTCTC CTTCTGGACC AGTTTTTGTC CTTCCTTGT GACCTGAGG GGTAACAGCC
121 TCTTTTCCAC TTTCTTTCAG CGCCGACATG CTCAATGTCA CCTTGCAAGG GCCCACTCTT
181 AACGGGACCT TTGCCCAGAG CAAATGCCCC CAAGTGAGT GGCTGGGCTG GCTCAACACC
241 ATCCAGCCCC CCTTCTCTG GGTGCTGTTC GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
301 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGACCGGTGG CAGAGATCTA CCTGGGGAAC
361 CTGGCCGCGC CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
421 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCGCG TGGTGAATGC CATTATCTCC
481 ATGAACCTGT ACAGCAGCAT CTGTTTCTCG ATGCTGGTGA GCATCGACCG CTACCTGGCC
541 CTGGTGAAAA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC

601 TTGGTGATCT GGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTT CCGGACCATG
661 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTTG TCATCAGCTA CCCATCCCTC
721 ATCTGGGAAG TGTTACCAA CATGCTCCTG AATGTCGTGG GCTTCCTGCT GCCCTGAGT
781 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
841 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
901 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
961 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
1021 TTCATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1081 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
1141 GAACCCATTC AGATGGAGAA TCCCATGGGC AACTGCGGA CCTCCATCTC CGTGGAACGC
1201 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
1261 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
1321 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
1381 ACTAATTCCT GNCCTGCCCA ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAACCTA
1441 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTGTC TGCCACACCT
1501 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCCTGGG GGCAGGGAGA GGAGTGA CTG
1561 AGCTTCCCTC CCGTGTGTTT TCCGTCCCTG CCCCAGCAAG ACAACTTAGA TCTCCAGGAG
1621 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGCAACA TGAGTTGTTG CCTGGGCTTT
1681 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
1741 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCT CACTGATGGA
1801 CAAGGGAGGT CTGTGCCAAA GAAGAATCCA ATAAGCACAT ATTGAGCACT TGCTGTATAT
1861 GCAGTATTGA GCAGTGTAGG CAAGAGGGAA GAAAGAGAAG GAGCCATCTC CATCTTGAAG
1921 GAACCTCAAAG ACTCAAGTGG GAACGACTGG CACTGCCACC ACCAGAAAGC TGTTCCGACA
1981 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
2041 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCTGCCT CAGTTCCCTC TTCTGTAAACA
2101 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
2161 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAAGT GGATATGTTT ACTATAAGGA
2221 AAAGACACTG AGGTCTAGA

(2) INFORMATION FOR SEQ ID NO:2447:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2478 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2447:

1 TGATCCTATC ACAACCTGAG AGTAGTTTTT ACTCCATTTA CAGGTGAGGT CATTGTGGTT
61 CAAGGACGTT AAGTAACTTC CCCAGCTCAC ACGGCTTATA AGTAAGGCAG CCAGGATGTG
121 AACCCAGTAG GACTATCTGG CTGCAAAGTC CCCACCCTCC CTCGCCATCT GTATCCTCCA
181 ATCATCTTCA GTGCTTTGCT GATAGAAGGT ACGGAAATAC GATGCCACAG ACTGTCCAGG
241 AAGACAGAAA CTAGGCAGAT GGGCTGGCCA TGGTCTCCAA GCCAGACTGG AATCTCCAGG
301 TCTGGAATGA TATCATTTTT CTCTTTTAAT AAATTAAGTC ACCCACCACA CGGCTTTGAG
361 AGGCTCAAAG GTGACCAACT CCCTTGGGAG GGCCCCGGTT GATAAGGAAG GAATGTGAAT
421 CCTCCCATCA CGGAAGCTTC AAGGAGGTCA AGGTTCCAAC ACTTGAGATT GTTAGTGCTG
481 TTGGTGGATA CTGCAGAATA TCCAGTGGAG CCTCAGATGA AGAACATGAG GCCCCGTTTA
541 GATCCAAGGA TCAGAGGGGG CTCTGTAAGA CCCAGGGGAG TCAGGTGCAC TGGAGCGCGG
601 GCTGCAGAAA ACAGCCTGAG CTCCACCTCG GCTTCTCCTT GCCCTGGCTG GTTGCTCTTA
661 ACCCTGTCT CTTCTGGAC CAGTTTTTGT CCTTCCCTTG TGACCTGAGG GGTAACAGCC
721 TCTTTTCCAT TTTCTTTCAG CGCCGACATG CTCAATGTCA CCTTGCAAGG GCCCACTCTT
781 AACGGGACCT TTGCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
841 ATCCAGCCCC CCTTCTCTG GGTGCTGTTT GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
901 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
961 CTGGCCGCGC CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
1021 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCGCG TGGTGAATGC CATTATCTCC
1081 ATGAACCTGT ACAGCAGCAT CTGTTTCTCTG ATGCTGGTGA GCATCGACCG CTACCTGGCC
1141 CTGGTGAAAA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
1201 TTGGTGATCT GGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTT CCGGACCATG
1261 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTTG TCATCAGCTA CCCATCCCTC
1321 ATCTGGGAAG TGTTACCAA CATGCTCCTG AATGTCGTGG GCTTCCTGCT GCCCTGAGT
1381 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
1441 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
1501 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC

1561 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
 1621 TTCATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
 1681 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
 1741 GAACCCATTC AGATGGAGAA CTCCATGGGC ACACTGCGGA CCTCCATCTC CGTGGAACGC
 1801 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
 1861 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
 1921 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTGTGA TGTCTCCGGT AAAACACCGG
 1981 AGACTAATTC CTGCCCTGCC CAATTTCGA GGGAGCATGG CTGTGAGGAT GGGGTGAAC
 2041 CACGCACAGC CAAGGACTCC AAAATCACAA CAGCATTACT GTTCTTATTT GCTGCCACAC
 2101 CTGAGCCAGC CTGCTCCTTC CCAGGAGTGG AGGAGGCCTG GGGGAGGGAG AGGAGTGACT
 2161 GAGCTTCCCT CCCGTGTGTT CTCCGTCCCT GCCCCAGCAA GACAACCTAG ATCTCCAGGA
 2221 GAACTGCCAT CCACGTTTGG TGCAATGGCT GAGTGCACAA GTGAGTTGTT GCCCTGGGTT
 2281 TCTTTAATCT ATCAGCTAGA ACTTTGAAGG ACAATTCTT GCATTAATAA AGGTTAAGCC
 2341 CTGAGGGGTC CCTTGATAAC AACCTGGAGA CCAGGATTTT ATGGCTCCCC TCACTGATGG
 2401 ACAAGGAGGT CTGTGCCAAA GAAGAATCAA TAAGCACATA TGAGCACTTC TGTATATCAG
 2461 TATTGAGCAC TGTAGGCA

(2) INFORMATION FOR SEQ ID NO:2448:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1231 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2448:

1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCACCC
 61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
 121 ACCTTTGCCC AGAGCAAATG CCCCCAAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
 181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
 241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
 301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
 361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
 421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
 481 AAAACCATGT CCATGGGCCG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
 541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG TGTTCGGAC CATGAAGGAG
 601 TACAGCGATG AGGGCCACAA CGTCACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
 661 GAAGTGTTCA CCAACATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCCC GAGTGTCTATC
 721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAG
 781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCTTGG TTGTGCTGCT GCTATTCTATC
 841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
 901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
 961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
 1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
 1081 ATTACAGATG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
 1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
 1201 AATTGTGTGA AGGATTGAGG GACAGTTGCT T

(2) INFORMATION FOR SEQ ID NO:2449:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1231 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2449:

1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCACCC
 61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
 121 ACCTTTGCCC AGAGCAAATG CCCCCAAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
 181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
 241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
 301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
 361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
 421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
 481 AAAACCATGT CCATGGGCCG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
 541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG TGTTCGGAC CATGAAGGAG

601 TACAGCGATG AGGGCCACAA CGTACCCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
 661 GAAGTGTTCA CCAACATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCTT GAGTGTTCATC
 721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
 781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCCTGG TTGTGCTGCT GCTATTCATC
 841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
 901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
 961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
 1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
 1081 ATTCAGATGG AGAATCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
 1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
 1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

(2) INFORMATION FOR SEQ ID NO:2450:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 266 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2450:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGGGAC ATCAGGCTGC CCCGAGTAC CAGGGAGCGA CTGAAGTGCC
 121 CATGCCGCTT GCTCCGAGA AGGTGGGTGC CGGGCAGGGG CTGCTCCAGC CGCCTCACCT
 181 CTGCTGGGAG GACAACTGT CCCAGCACAG AGGGAGGGAG GGAGGGCAGG CAGCGGGGAG
 241 AAGTTTCCCT GTGGTCGTGG GGAGTT

(2) INFORMATION FOR SEQ ID NO:2451:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 275 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2451:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC
 121 TGAAGTGCCC ATGCCGCTTG CTCCGAGAAA GGTGGGTGCC GGGCAGGGGC TGCTCCAGCC
 181 GCCTCACCTC TGCTGGGAGG ACAAATGTC CCAGCACAGA GGGAGGGAGG GAGGGCAGGC
 241 AGCGGGGAGA AGTTTCCCTG TGGTCGTGGG GAGTT

(2) INFORMATION FOR SEQ ID NO:2452:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1464 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2452:

1 GAGCTCTTCA ATATTTTAGT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
 61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGCAGCCTGT CCATAGACCT CTGTCCCCAA
 121 CTGGCAAGTC AGGAACTCC AGATTAAGGA GCCCAATGT GGTGAACAG CCAGGTGCAC
 181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
 241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCCATAAAC TGATCTGAGA CTCTGTTTCC
 301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGGTTT GTAGGCTTGT TATGAATCAA
 361 GTCACAGGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCTT CTGGCCCTCC TGTCTCTTCC
 421 CCAGATCCAC TGGGCCCACT CTTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
 481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGCTCCT ACCGTCTCAG CCCTGGGAGT
 541 GTAAAGTGCT CGAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
 601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
 661 GCGCAAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTCGCCC TTGGGAGCCG
 721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCTTGCCC ACCTGGCCAC CCTCTGTTTA
 781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAACTC AGACACAAA TAACCACCTC
 841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGGC
 901 TTCCCAGGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTTT GCCGTCCCAC GACTCCAACG
 961 GGCAGCCGGG CCTACGCAA CATGGAATC TTCCAAGAGC CTCCCTGGCC CCAGGGGCTC
 1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCCGGCCCCA CAGCCAGCCT

1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGGAAGT GCCCAGGAGG
 1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCCGCCGCCA CTCCAGCTCT
 1201 GGCTTCTGGG CTCCGAGGAG GGGTGGGGAC GGTGGTGACG GTGGGGACAT CAGGCTGCCC
 1261 CGCAGTACCA GGGAGCGACT GAAGTGCCCA TGCCGCTTGC TCCGGAGAAG GTGGGTGCCC
 1321 GGCAGGGGCT GCTCCAGCCG CCTCACCTCT GCTGGGAGGA CAAACTGTCC CAGCACAGAG
 1381 GGAGGGAGGG AGGGCAGGCA GCGGGGAGAA GTTTCCTGT GGTCTGGGG AGTTGGGAAA
 1441 AGTTCCCTTC CTTCCGGAGG GAGG

(2) INFORMATION FOR SEQ ID NO:2453:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2599 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2453:

1 CAGATTCACT AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
 61 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
 121 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
 181 ACTAATTCCT GCCCTGCCCA ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAACTCA
 241 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
 301 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGGAGGGAGA GGAGTGACTG
 361 AGCTTCCCTC CCGTGTGTTC TCCGTCCCTG CCCAGCAAG ACAACTTAGA TCTCCAGGAG
 421 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGCACAAG TGAGTTGTTG CCCTGGGTTT
 481 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
 541 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCTT CACTGATGGA
 601 CAAGGAGGTC TGTGCCAAAG AAGAATCCAA TAAGCACATA TTGAGCACTT GCTGTATATG
 661 CAGTATTGAG CACTGTAGGC AAGACCCAAG AAAGAGAAGG AGCCATCTCC ATCTTGAAGG
 721 AACTCAAAGA CTCAAGTGGG AAGCACTGGG CACTGCCACC ACCAGAAAGC TGTTCCGACG
 781 GACGGTCGAG CAGGGTGTCT TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTCCA
 841 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCTT TTATGTAACA
 901 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
 961 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAACG GGATATGTTT ACTATAAGGA
 1021 AAAGACACTG AGGTCTAGAA ATAGCTCCGT GGAGCAGAA CAGTATTGGG AGCCGGTGGC
 1081 GGTGTGAAGC ACCAGTGTCT GGCACACAGT AGGTGCTCAT TGGCTCCCTT CCACCTGCA
 1141 TTCCCACCAC CCTGAGGCCC CAACCGCCAC ACACACAGGA GCATTGGAG AGAAGGCCAT
 1201 GTCTTCAAAG TCTGATTTGT GATGAGGCAG AGGAAGATAT TTCTAATCGG TCTTGCCAG
 1261 AGGATCACAG TGCTGAGACC CCCACACCAG AGCCGGTACC TGGGAAGGGG GAGAGTGACG
 1321 GCCTGCTCAG GGAAGTGTTC TGTCTCAGCA ACCAAGGGAT TGTTCCTGTC AATCAATGGT
 1381 TTATTGGAAG GTGGCCCACT ATGAGCCCTA GAAGAGTGTG AAAAGGAATG GCAATGGTGT
 1441 TCACCATCGG CAGTGCCAGG GCAGCACTCA TTCACCTGAT AAATGAATAT TTATTAGCTG
 1501 GTTGAGAGC TAGAACCTGG AGAGCTAGAA CCTGGAGAAC TAGAACCTGG AGGGCTAGAA
 1561 CCTGGAGAGG CTAGAACCAA GAAGGGCTAG AACCTGGAGG GGCTAGAACC TAGAGAAGCT
 1621 AAAACCTGAG CTAGAAGCTG GAGGACTAGA ACCTGGAGGG CTGGAATCTG AAGGGCTAGA
 1681 ACCTGGAGGG CTGGAATCTG GAGAGCTAGA ACCTGGAGGG CTAGAACCTG GAGGGCTAGA
 1741 ACCTAGAAGG GCTAGAACCT GGAGGGCTGG AATCTGGAGA GCTAGAACCT GGAGGGCTAG
 1801 AACCTGGAGG GCTAGAACCT AGAAGGGCTA GAACCTGGAG GGCTAGAACC TGGCAGGTTA
 1861 GAACCTAGAA GGGCTAGAAC CTGGAGAGCC AGAACCTGGA GGGCTAGAAC CTGGAAGGGC
 1921 TAGAACCTGT AGAGCTAGAA CATGGAGAGC TAGAACCCGG CAGGCTAGAA CCTGGCAAGC
 1981 TAGAACCTGG AGGGAATGAA CCTGGAGGGC TAGAACCTGG AGAATGAGAA AAATTTACAT
 2041 GGCAAAGAGC CCATAAATCC TGACCAATCC AACTCTGAAT TTAAAGCAA AAGCGTGAAA
 2101 AAAAAGATTC CCTCCTTACC CCCAACCCAC TCTTTTTTCC CACCACCAC TCTCCTCTGC
 2161 CTAGTAAGT ATCTGGAGGA AGAAAACAGG TGAAAGAAGA AGTAAAAACC ATTTAGTATT
 2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAACC AAAAAGAGGC
 2281 TGTGTTTTGT CACACAGGGC AGTCATTGAG CACCAGAGCA CGTGATGGTC TGAGACTCTC
 2341 TTAGGAGCAG AGCTCTGCCG CAATGGCCAT GTGGGGATCC ACACCTGGTC TGAGGGGCAA
 2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
 2461 TGTCTGTGTA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATTT CACATCCAAA
 2521 CGAGAAAATC ATGTAAACAT GTGTCTTTTC TGTAGAGCAT AATAATGGA TGAGGTTTTT
 2581 GCAAAAAAAA AAAAAAAA

(2) INFORMATION FOR SEQ ID NO:2454:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7328 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2454:

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1  AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTAAA ATGAATGCTT TAAGCCGGGT
61  GCAGTGCCTC ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTCG AGACCAACCT GGCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGGT GACAGAGAGA GACTCCGTCT CAAAAAATAA AAAAAAATAA AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCACTGTT GAATTTTCTT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCCT TTCCCTCTGC AAACCTCCCTG CTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTGCAAGTG TCCAAACCCT GATCCCAGCT
541 GTGCTTAGGG GTTCTTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCTTG
601 TTTACCAACT CAGCTTTTGT TTTTAGTGTG TTTGAATTCC CTGAAGTACG CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAGACTGG GATGTGGCAG ATCCGTGGCT ACATTTCATG ACACACACAC
781 ACCCACATAC CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTCCACA CCCTTCCTAG ACAGGGGTCA CTTGGTATCC TGGAGAGAGT
901 GTGAAGTCTT GGAATGGAAA GAGGGGGGAT TAAGCCCCAC CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCCTTGTGT TTACCTCCTC TGTGAGGCAA GCACAGAGCC
1021 CATGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTGAG AGCAAGGGTC
1081 GGAATGGAA GGCCCTTGGG AAAAAAGGCC CTTTCAACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTAATTG GTAAGCCAAG CCCGAAGGGA CTGGAATATC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCCTGT CTCCATCACA
1261 GTGCTCCAGT CCAGACCCCT CCTCTGAGCT CCAGACCCTG CTGGACCCAA CCAGCCCTAT
1321 GGGGTGCGAT CCCCACCTGC CTGGAATTCT CCAAAGAACC TCCCCTTTAA CAGTTCCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCCTCT AAATCAGCCC CCCATCTCTG
1441 CCTTTCAGG AGATGGAAGC CATGACACCT GCCTCGCCCC TGTCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCATG TCAGGTTTAC CCTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATTC ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGTCTA
1741 CCCTCAGTGT TCTCATCAAT AATCCACTCC CCTCACAGGC GCGTTTGGGA CCCCATGTTT
1801 TATGCTCTCA CAGGACCTTT TGCTTGATTT TTTACTGTAC TTAGGTCAGT TTGCAGTTAT
1861 TAAGTGAAGT AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGTCTCTAGC CATTGTATAC
1921 CTAGCACCAGC TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTTCTCC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCAGCCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCCAG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAAATGTTT TCTCCCTGGA AGATATCAAT GTTTCTGTCT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGCC TCTTTCAGGT GAGTCAAAGG GATTCTCTAG TTCACTAGTT AGGGGAGGTG
2221 GGAGACACC CTGGAGAACT CCCTGGAAAG CTCAACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCAAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGCTC AGGGAGGAGA
2401 AGGGCACATT CCTGGTGTGT ATATGTTTCT ATCTATCCCA GATGAACTTG GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAAA GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC
2521 CTTGGAAACA AAATATCTCC AACACATGGC TGACATTGAG TGGGAGATCA GAACACCCTA
2581 AAGAGAGAAT TTAAGGGGAG GGGGAGGAGG ACCTGAGCCA GAGTAGAAGC AGAGGATAGG
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAACCT
2701 CTCCACCCTG CTGCAGGTGC TGCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGTCTTGC
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAGT TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGGACC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAAGGAGG CTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGCTTAT
3121 CTCTGTTCCA AGATGTCTGG GGCCTTGGTT GGAAGATTC AAGGCTAGGA AACCAGGAGC
3181 CACCAAAAGC GTAACCTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCACCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA GCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAAGT CCAGCCCACG TCCAGGAGAA GAGGAAGCAG ATTCCTCCTT

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3421 TTGAAATGAA GAATATCAAG TAATTCGGGG GGCATATGAA AGCCACCACA CACCACAGGG
 3481 ATCTTTTATAG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAAG
 3541 CCTCACTTCC TTAGCACCCA GTGAAGACCA CGCTTACTCC CTCACTCAAC CTCTTGTAC
 3601 TTCCACCTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA CAGCTTCCCC
 3661 AGTTCTGTGC CTCTGCTCAG GCTGTTCCCC CTGCCCTGGT CACTTGTCTT CCTTCTGTG
 3721 CGGTCAAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACTTCCA ACCCCTTACC
 3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCCCT GCTCCCTCCA GGGCACCTC
 3841 CACCCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
 3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAAA ACATTTAAAG
 3961 GATAGAAGCA TTGATTGTG GGTCCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
 4021 TAGAAGCAAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCGT
 4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
 4141 CCCTTTTCTT TCTCTCACCC ACAGCACAGG GCACTGGGAA AATGCCCAAT GAGTCTGCC
 4201 TCTGGGTGTG GCTTTGACT TTTCAAGTGT TCTCGCATCC ACTCTTCAAC TTGAATGTTG
 4261 CAACAGCCAT GAAAAAAGAA ATGCAAAGCG ATTCAAGATG AGAGCAATAC CCTACTCCA
 4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGCTAGGA
 4381 GTGGAACCTA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
 4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCTAAGAA TGAAAGAGGA
 4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
 4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGC GGGGGCATTT
 4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGGTA GTGGTTTAA CTGCCATGTT
 4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACTT CCCCAGCGTG ACACGGCTTA
 4741 TAAGTAAGGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAAG TCCCCACCCC
 4801 CCTCGCCATC TGTATCCTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
 4861 CAGGATGCCA CAGACTGTCC AGGAAGACAG AAAGTAGGCA GATGGGCTGG CCATGGTCTC
 4921 CAAGCCAGAC TGGAAATCTC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAATTAA
 4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCCG
 5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TTCAAGGAGG TCAAGGGTCC
 5101 AACACTTGAG ATTGTTAGTG CTGTTGGTGG ATACTGGCCA AGGAAATATC CCAGTGGAGC
 5161 CTCGAGATGA AGAACATGAG GCCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAG
 5221 ACCCAGGGGA GTCAGGTGCA CTGGAGCGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
 5281 CGGCTTCTCC TTGTCTTGGC TGGTTGTCTT TAACCCCTGT CTCCTTCTGG ACCAGTTTTT
 5341 GTCCCTTCCCT TGTGACCGCT GAGGGGTAAC AGCCTCTTTC CACTTTCTTT CAGCGCCGAC
 5401 ATGCTCAATG TCACCTTGCA AGGGCCCACT CTTAACGGGA CCTTTGCCCA GAGCAAATGC
 5461 CCCCAGTGG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCCTTCCCT CTGGGTGCTG
 5521 TTCTGTCTGG CCACCTTAGA GAACATCTTT GTCTCTAGCG TCTTCTGCCT GCACAAGAGC
 5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCCTGGCC
 5641 TGCGGGCTGC CCTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
 5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTTC
 5761 CTGATGCTGG TGAGCATCGA CCGCTACCTG GCCCTGGTGA AAACCATGTC CATGGGCGCG
 5821 ATGCGCGGCG TGCGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
 5881 CTGAGCTCAC CCATGCTGGT GTTCCGGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
 5941 GTCACCGCTT GTGTCTCAG CTACCATCC CTCATCTGGG AAGTGTTCAC CAACATGCTC
 6001 CTGAATGTG TGGGCTTCCCT GCTGCCCCTG AGTGTCTATC CTTTCTGCAC GATGCAGATC
 6061 ATGCAGGTGC TGCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
 6121 GCCACGGTGC TAGTCTGGT TGTGCTGCTG CTATTCATCA TCTGCTGGCT GCCCTTCCAG
 6181 ATCAGCACCT TCCTGGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
 6241 CGCATCATCG ATGTAATCAC ACAGATCGCC TCCTTCATGG CCTACAGCAA CAGCTGCCTC
 6301 AACCCTACTG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
 6361 CAGGGAGTGT GCCAGAAAGG GGGCTGCAGG TCAGAACCCA TTCAGATGGA GAACTCCATG
 6421 GGCACACTGC GGACCTCCAT CTCCGTGGAA CGCCAGATTC ACAAACGCA GGAATGGGCA
 6481 GGGAGCAGAC AGTGAGCAAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATGAGGG
 6541 ACAGTTGCTT TTCAGCATGG GCCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTTGGG
 6601 AAATGAGTTG ATGTCTCCG TAAAACACCG GAGACTAATT CCTGCCCTGC CCAATTTTGC
 6661 AGGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAAATCACA
 6721 ACAGCATTAC TGTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
 6781 GAGGAGGCCT GGGGGCAGGG AGAGGAGTGA CTGAGCTTCC CTCCCCTGTG TTCTCCGTCC
 6841 CTGCCCCAGC AAGACAACCT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
 6901 CTGAGTGCAC AAGTGAGTTG TTGCCCTGGG TTTCTTTAAT CTATTCAGCT AGAATTTTGA
 6961 AGGACAATTT CTTGCATTAA TAAAGGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
 7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
 7081 CAATAAGCAC ATATTGAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG

7141 AAGAAAGAGA AGGAGCCATC TCCATCTTGA AGGAACTCAA AGACTCAAGT GGGAAACGACT
 7201 GGGCACTGCC ACCACCAGAA AGCTGTTCGA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA
 7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTACCAA TACTATTGCA CACCACCTGT
 7321 CCTGCCTC

(2) INFORMATION FOR SEQ ID NO:2455:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2239 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2455:

1 CTGCAGAAAA CAGCCTGAGC TCCACCTCGG CTTCTCCTTG CCCTGGCTGG TTGTCTCTAA
 61 CCCCTGTCTC CTTCTGGACC AGTTTTTGTG CTTCCCTTGT GACCTGAGG GGTAACAGCC
 121 TCTTTTCCAC TTTCTTTCAG CGCCGACATG CTCAATGTCA CTTGCAAGG GCCCACTCTT
 181 AACGGGACCT TTGCCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
 241 ATCCAGCCCC CCTTCCTCTG GGTGCTGTTC GTGCTGGCCA CCTAGAGAA CATCTTGTG
 301 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
 361 CTGGCCGCAG CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
 421 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCGCG TGGTGAATGC CATTATCTCC
 481 ATGAACCTGT ACAGCAGCAT CTGTTTCCTG ATGCTGGTGA GCATCGACCG CTACCTGGCC
 541 CTGGTGAAAA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
 601 TTGGTGATCT GGGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTG CCGGACCATG
 661 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTG TCATCAGCTA CCCATCCCTC
 721 ATCTGGGAAG TGTTCACCAA CATGCTCCTG AATGTCGTGG GCTTCCTGCT GCCCTGAGT
 781 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
 841 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGTGCTAG TCCTGGTGTG GCTGTGCTA
 901 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
 961 GGCATCTCTT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
 1021 TTCATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
 1081 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
 1141 GAACCCATTC AGATGGAGAA CTCATGGGC ACACTGCGGA CCTCCATCTC CGTGGAACGC
 1201 CAGATTCAACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
 1261 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
 1321 AAGGAGACAT CTATGCACGA CTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
 1381 ACTAATTCCT GNCCTGCCCC ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAACTCA
 1441 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
 1501 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCTGGG GGCAGGGAGA GGAGTGACTG
 1561 AGCTTCCCTC CCGTGTGTTT TCCGTCCCCTG CCCCAGCAAG ACAACTTAGA TCTCCAGGAG
 1621 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGCACAAG TGAGTTGTTG CCCTGGGTTT
 1681 CTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCCT GCATTAATAA AGGTTAAGCC
 1741 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGCTCCCCCT CACTGATGGA
 1801 CAAGGGAGGT CTGTGCCAAA GAAGAATCCA ATAAGCACAT ATTGAGCACT TGCTGTATAT
 1861 GCAGTATTGA GCACTGTAGG CAAGAGGGAA GAAAGAGAAG GAGCCATCTC CATCTTGAAG
 1921 GAACTCAAAG ACTCAAGTGG GAACGACTGG CACTGCCACC ACCAGAAAGC TGTTCGACGA
 1981 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
 2041 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCCTC TTCTGTAACA
 2101 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GACTTAGAA AAGCAAAGGG
 2161 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAACCT GGATATGTTT ACTATAAGGA
 2221 AAAGACACTG AGGTCTAGA

(2) INFORMATION FOR SEQ ID NO:2456:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2478 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2456:

1 TGATCCTATC ACAACCTGAG AGTAGTTTTT ACTCCATTTA CAGGTGAGGT CATTGTGGTT
 61 CAAGGACGTT AAGTAACTTC CCCAGCTCAC ACGGCTTATA AGTAAGGCAG CCAGGATGTG
 121 AACCAGTAG GACTATCTGG CTGCAAAGTC CCCACCCTCC CTCGCCATCT GTATCCTCCA
 181 ATCATCTTCA GTGCTTTGCT GATAGAAGGT ACGGAAATAC GATGCCACAG ACTGTCCAGG
 241 AAGACAGAAA CTAGGCAGAT GGGCTGGCCA TGGTCTCAA GCCAGACTGG AATCTCCAGG

301 TCTGGAATGA TATCATTTTT CTCTTTTAAT AAATTAATCT ACCCACCACA CGGCTTTGAG
361 AGGCTCAAAG GTGACCAACT CCCTTGGGAG GGCCCCGGTT GATAAGGAAG GAATGTGAAT
421 CCTCCCATCA CGGAAGCTTC AAGGAGGTCA AGGGTCCAAC ACTTGAGATT GTTAGTGCTG
481 TTGGTGGATA CTGCAGAATA TCCAGTGGAG CCTCAGATGA AGAACATGAG GCCCCGTTTA
541 GATCCAAGGA TCAGAGGGGG CTCTGTAAGA CCCAGGGGAG TCAGGTGCAC TGGAGCGCGG
601 GCTGCAGAAA ACAGCCTGAG CTCCACCTCG GCTTCTCCTT GCCCTGGCTG GTTGTCCTTA
661 ACCCCTGTCT CTTCTTGGAC CAGTTTTTGT CCTTCCCTTG TGACCTGAGG GGTAAACAGCC
721 TCTTTTCCAC TTTCTTTTTCAG CGCCGACATG CTCATGTGTA CCTTGCAAGG GCCCACTCTT
781 AACGGGACCT TTGCCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
841 ATCCAGCCCC CCTTCCTCTG GGTGCTGTTC GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
901 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
961 CTGGCCGCAG CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
1021 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCGCG TGGTGAATGC CATTATCTCC
1081 ATGAACCTGT ACAGCAGCAT CTGTTTCTTG ATGCTGGTGA GCATCGACCG CTACCTGGCC
1141 CTGTGAAAAA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
1201 TTGGTGATCT GGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTT CCGGACCATG
1261 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTG TCATCAGCTA CCCATCCCTC
1321 ATCTGGGAAG TGTTCACCAA CATGCTCCTG AATGTCGTGG GCTTCTGCTT GCCCTGAGT
1381 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
1441 TTCAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
1501 TTCAATCATCT GCTGGCTGCC CTTCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
1561 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
1621 TTCAATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1681 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
1741 GAACCCATTC AGATGGAGAA CTCCATGGGC AACTTGCGGA CCTCCATCTC CGTGGAAACG
1801 CAGATTACAA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
1861 GCTGTGAAT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
1921 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTGTGTA TGCTCCGGT AAAACACCGG
1981 AGACTAATTC CTGCCTGCC CAATTTTCGA GGGAGCATGG CTGTGAGGAT GGGGTGAAC
2041 CACGCACAGC CAAGGACTCC AAAATCACAA CAGCATTACT GTTCTTATTT GCTGCCACAC
2101 CTGAGCCAGC CTGCTCCTTC CCAGGAGTGG AGGAGGCCTG GGGGAGGGAG AGGAGTGACT
2161 GAGCTTCCCT CCCGTGTGTT CTCCGTCCTT GCGCCAGCAA GACAACTTAG ATCTCCAGGA
2221 GAACTGCCAT CCACGTTTGG TGCAATGGCT GAGTGACAA GTGAGTTGTT GCCCTGGGTT
2281 TCTTTAATCT ATCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
2341 CTGAGGGGTC CCTTGATAAC AACCTGGAGA CCAGGATTTT ATGGCTCCCC TCACTGATGG
2401 ACAAGGAGGT CTGTGCCAAA GAAGAATCAA TAAGCACATA TGAGCACTTC TGTATATCAG
2461 TATTGAGCAC TGTAGGCA

(2) INFORMATION FOR SEQ ID NO:2457:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1231 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2457:

1 ATGTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCCAAC
61 ACGGCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
121 ACCTTTGCC AGAGCAAATG CCCCAAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCTAG AGAACATCTT TGTCTCAGC
241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCTTGGTG
481 AAAACCATGT CCATGGGGCC GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG GTTCCGGAC CATGAAGGAG
601 TACAGCGATG AGGGCCACAA CGTACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
661 GAAGTGTTCA CCAACATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCCCT GAGTGTGATC
721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
781 GAGATCCAGA CCGAGAGGAG GGCCACGGTG CTAGTCTGCT TTGTGCTGCT GCTATTTCATC
841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA

1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
 1081 ATTCAGATGG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
 1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
 1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

(2) INFORMATION FOR SEQ ID NO:2458:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1231 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2458:

1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTC GTGAGGACTC CGTGCCACCC
 61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
 121 ACCTTTGCCC AGAGCAAATG CCCCCAAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
 181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCCTCAGC
 241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
 301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
 361 TTCGACTGGC TCTTTGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
 421 CTGTACAGCA GCATCTGTTT CTTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
 481 AAAACCATGT CCATGGGCGG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTGGTG
 541 ATCTGGGGGT GTACGCTGCT CTTGAGCTCA CCCATGCTGG TGTTCGGAC CATGAAGGAG
 601 TACAGCGATG AGGGCCACAA CGTCACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
 661 GAAGTGTTCA CCAACATGCT CTTGAATGTC GTGGGCTTCC TGCTGCCCTT GAGTGTCAATC
 721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
 781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCCTGG TTGTGCTGCT GCTATTCATC
 841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
 901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
 961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
 1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
 1081 ATTCAGATGG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
 1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
 1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

(2) INFORMATION FOR SEQ ID NO:2459:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 266 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2459:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGGGAC ATCAGGCTGC CCCGAGTAC CAGGGAGCGA CTGAAGTGCC
 121 CATGCCGCTT GCTCCGAGA AGGTGGGTGC CGGGCAGGGG CTGCTCCAGC CGCCTCACCT
 181 CTGCTGGGAG GACAACTGT CCCAGCACAG AGGGAGGGAG GGAGGGCAGG CAGCGGGGAG
 241 AAGTTTCCCT GTGGTCGTGG GGAGTT

(2) INFORMATION FOR SEQ ID NO:2460:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 275 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2460:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC
 121 TGAAGTGCCC ATGCCGCTTG CTCCGGAGAA GGTGGGTGCC GGGCAGGGGC TGCTCCAGCC
 181 GCCTCACCTC TGCTGGGAGG ACAAATGTC CCAGCACAGA GGGAGGGAGG GAGGGCAGGC
 241 AGCGGGGAGA AGTTTCCCTG TGTCGTGGG GAGTT

(2) INFORMATION FOR SEQ ID NO:2461:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1464 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2461:

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1 GAGCTCTTCA ATATTTTAGT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGCAGCCTGT CCATAGACCT CTGTCCCCAA
121 CTGGCAAGTC AGGAAACTCC AGATTAAGGA GCCCAATGT GGTGAACAG CCAGGTGCAC
181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCCATAAAC TGATCTGAGA CTCTGTTTCC
301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGGTTT GTAGGCTTGT TATGAATCAA
361 GTACAGAGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCCT CTGGCCCTCC TGTCTCTTCC
421 CCAGATCCAC TGGGCCCACT CTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGCTCCT ACCGTCTCAG CCCTGGGAGT
541 GTAAAGTGCT GCAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
661 GCGCAAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTCGCCC TTGGGAGCCG
721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCTGCCAC CCTGTGTTTA
781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAAACTC AGACACAAAA TAACCACCTC
841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGGC
901 TTCCAGAGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTTT GCCGTCCAC GACTCCAACG
961 GGCAGCCGGG CCTACGCAAA CATGGAAATC TTCCAAGAGC CTCCTGGCC CCCAGGGCTC
1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCGGCCCA CAGCCAGCTT
1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGAAGT GCCCAGGAGG
1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCGCCGCCA CTCCAGCTCT
1201 GGCTTCTGGG CTCCGAGGAG GGTGGGGGAC GGTGGTGACG GTGGGGACAT CAGGCTGCCC
1261 CGCAGTACCA GGGAGCGACT GAAGTGCCCA TGCCGCTTGC TCCGGAGAAG GTGGGTGCCG
1321 GGCAGGGGCT GTCCAGCCG CCTCACCTCT GCTGGGAGGA CAAACTGTCC CAGCACAGAG
1381 GGAGGGAGGG AGGCAGGCA GCGGGGAGAA GTTCCCTGT GTCGTGGGG AGTTGGGAAA
1441 AGTTCCTTC CTTCCGAGG GAGG

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(2) INFORMATION FOR SEQ ID NO:2462:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1426 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2462:

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1 CTTTGTGAAG AAGGAATTGG CAACACTGAA ACCTCCAGAA CAAAGGCTGT CACTAAGGTC
61 CCGCTGCCTT GATGGATTAT ACACCTTGACC TCAGTGTGAC AACAGTGACC GACTACTACT
121 ACCCTGATAT CTTCTCAAGC CCCTGTGATG CGGAACCTAT TCAGACAAAT GGCAAGTTGC
181 TCCTTGCTGT CTTTATTGCT CTCTGTTTG TATTCAGTCT TCTGGGAAAC AGCCTGGTCA
241 TCCTGGTCCT TGTGGTCTGC AAGAAGCTGA GGAGCATCAC AGATGTATAC CTCTTGAACC
301 TGGCCCTGTC TGACCTGCTT TTTGTCTTCT CCTTCCCTT TCAGACCTAC TATCTGCTGG
361 ACCAGTGGGT GTTGGGACT GTAATGTGCA AAGTGGTGTC TGGCTTTTAT TACATTGGCT
421 TCTACAGCAG CATGTTTTTC ATCACCCTCA TGAGTGTGGA CAGGTACCTG GCTGTTGTCC
481 ATGCCGTGTA TGCCCTAAAG GTGAGGACGA TCAGGATGGG CACAACGCTG TGCTGGCAG
541 TATGGCTAAC CGCCATTATG GCTACCATCC CATTGCTAGT GTTTTACCAA GTGGCCTCTG
601 AAGATGGTGT TCTACAGTGT TATTCATTTT ACAATCAACA GACTTTGAAG TGGAAGATCT
661 TCACCAACTT CAAAATGAAC ATTTTAGGCT TGTGATCCC ATTCACCATC TTTATGTTCT
721 GCTACATTAA AATCCTGCAC CAGCTGAAGA GGTGTCAAAA CCACAACAAG ACCAAGGCCA
781 TCAGGTTGGT GCTCATTGTG GTCATTGCAT CTTACTTTT CTGGGTCCCA TTCAACGTGG
841 TTCTTTTCT CACTTCTCTG CACAGTATGC ACATCTTGGG TGATGTAGC ATAAGCCAAC
901 AGCTGACTTA TGCCACCAT GTACAGAAA TCATTTCTCT TACTCACTGC TGTGTGAACC
961 CTGTTATCTA TGCTTTTGTG GGGGAGAAGT TCAAGAAACA CCTCTCAGAA ATATTTTCAGA
1021 AAAGTTGCAG CAAAATCTTC AACTACCTAG GAAGACAAAT GCCTAGGGAG AGCTGTGAAA
1081 AGTCATCATC CTGCCAGCAG CACTCCTCCC GTTCCTCCAG CGTAGACTAC ATTTTGTGAG
1141 GATCAATGAA GACTAAATAT AAAAAACATT TTCTTGAATG GCATGCTAGT AGCAGTGAGC
1201 AAAGGTGTGG GTGTGAAAGG TTCCAAAAA AAGTTCAGCA TGAAGGATGC CGTGTGTGTT
1261 GTTGCCAACA CTTGGAACAC AATGACTGGA GACATAGTTG TGCATGCCTG GCACAACATC
1321 AAGCCTGTGA TTGTGTTTAT TGATGATGTT GAACAAGTGG TGGCTTTGAG GGATTCTGTA
1381 TGCCAAGTGG AAAAAAAGA TGTCTCCGA ATTCGACAGG TTATCA

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(2) INFORMATION FOR SEQ ID NO:2463:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5161 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2463:

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1 TTTTCATCTCT CCGGGCTTAT TTGCTGGTTT CTCCGAATGC GGGCCTTGTC TGGTTCACGC
61 TGGATCCCCA ACGCCTAGAA CAGTGCCTGG CACGCAGTTC GTCCTTCTAT AAAATATCGGA
121 CTAATGTCAT CTCTGTGATG GTAATACCCA CACGGTGTGG TGAGAATGAA TGAGTGATTC
181 TGTGCAAGTT CCTAGTGATC TGTTACAAAA AGTACTGGTC GCTAAATTAC TCTTATAATA
241 AAGCATACTT TTAGGATAAT AAAGCACTAT TCGCGAATTG GTTACCCTGA TTATGAAATT
301 ACTGAGCAAT ACATATCTAC ATCTGATCAG TCTCCAGAAT TATGCCAAAT CCTACCTTCT
361 TCTGAAAGTA TCTCCTAATT ATCTGCACCT GACCCTAGTG ATGCTGTGAA TGTGCAAGTA
421 TAGCTACATC CTCCGAAGGA AGGATCTTTA CTCTTTTAC CTCTGAATG GGCTGCGTCT
481 GCTGAAAGCG CGGGGAATG GGCCTGTGGA AGCTTGGCCC TACTTCCAGC ATTGCCGCCT
541 ACTGGTTGGG TTAATCCAGC AAGTCACTCC CCTTCCCTGG GCCTCAGTGT CTCTACTGTA
601 GCATTCCTCAG GTCTGGAATT CCATCCACTT TAGCAAGGAT GGACGCGCCA CAGAGAGACG
661 CGTTCCTAGC CCGCGCTTCC CACCTGTCTT CAGGCGCATC CCGCTTCCCT CAAACTTAGG
721 AAATGCCTCT GGGAGGTCTT GTCCGGCTCC GGAATCACTA CCGACCACCC GCAAAACAGCA
781 GGGTCCCTCG GGCTTCCCAA GCCCGCACCC TCTCCGCCCC GCGCTGCGC CCTCTTCTCT
841 CGCGTCTGCC CCTCTCCCCC ACCCGCCTT CTCTCTCCCC GCGCATGCGCC
901 GCGCTCGGAG CGTGTTTTAA TAAAAGTCCG GCCGCGGCCA GAAACTTCAG TTTGTTGGCT
961 GCGGCAGCAG GTAGCAAAGT GACGCCGAGG GCCTGAGTGC TCCAGTAGCC ACCGCATCTG
1021 GAGAACCAGC GGTACCATG GAGGGGATCA GTGTAAGTCC AGTTTCAACC TGCTTTGTCA
1081 TAAATGTACA AACGTTTGAA CTTAGAGCGC AGCCCTCTC CGAGCGGGCA GAAGCGGGCA
1141 GGACATTGGA GGTACCCGTA CTCCAAAAAA GGGTCACCGA AAGGAGTTTT CTTGACCATG
1201 CCTATATAGT GCGGGTGGGT GGGGGGGGAG CAGGATTGGA ATCTTTTCT CTGTGAGTCG
1261 AGGAGAAACG ACTGGAAAGA GCGTTCAGT GGCTGCATGT GTCTCCCCCT TGAGTCCCGC
1321 CGCGCGCGGC GGCTTGCACG CTGTTTGCAA ACGTAAGAAC ATTCTGTGCA CAAGTGCAGA
1381 GAAGGCGTGC GCGCTGCCTC GGGACTCAGA CCACCGGTCT CTTCCTTGGG GAAGCGGGGA
1441 TGTCTTGGAG CGAGTTACAT TGTCTGAATT TAGAGCGGGA GGGCGCGTGC CTTGGGCTGA
1501 CTTCCAGGGA GGAGATTGCG CCCGCTTAA CTTGCGGGT AAGCGCCTGG TGACTGTTCT
1561 TGACACTGGG TGCGTGTGTT TTAACCTCTG TCGCGCCGAC GGAGCTGTGC CAGTCTCCCA
1621 GCACAGTAGG CAGAGGGCGG GAGAGGCGGG TGGACCCACC GCGCCGATCC TCTGAGGGGA
1681 TCGAGTGGTG GCAGCAGCTA GGAGTTGATC CGCCCGCGCG CTTTGGGTTT GAGGGGAAAA
1741 CTTTCCCGCC GTCCGAAGCG CGCCTCTTCC CCACGGCCGC GAGTGGGTCC TGCAGTTTCA
1801 GAGTTTGGGG TCGTGCAAGG GTCAGCGGAG TGGTTTGACC TCCCCTTTGA CACCGCGCAG
1861 CTGCCAGCCC TGAGATTGTC GCTCCGGGGA TAGGAGCGGG TACGGGGTGA GGGCGGGGG
1921 CGGTTAAGAC CGCACCTGGG CTGCCAGGTC GCCGCGCGCA AGACTGGCAG GTGCAAGTGG
1981 GGAAACCGTT TGGCTCTCTC CGAGTCCAGT TGTGATGTTT AACCGTCGGT GGTTCACAGA
2041 AACCTTTTGA AACCTCTTGT CTAGGAGATT TTTGGTTTCC TGCAGCGGCG CGCAATTCAA
2101 AGACGCTCGC GCGGAGCGCG CCCAGTCGCT CCCCAGCACC CTGTGGGACA GAGCCTGGCG
2161 TGTGCGCCAG CGGAGCCCTT GCAGCGCTGC TTGCGGGCGG TTGGCGTGGG TGTAGTGGGC
2221 AGCCGCGGCG GCCCGGGGCT GGACGACCCG GCCCCCCGCG TGCCACCCGC CTGGAGGCTT
2281 CCAGCTGCCC ACCTCCGGCC GGGTTAACTG GATCAGTGGC GGGGTAATGG GAAGCCACCC
2341 GGGAGAGTGA GGAAATGAAA CTTGGGGCGA GGACACGGG TGCAGACCCC GTTACCTTCT
2401 CCACCCAGGA AAATGCCCGC CTCCCTAACG TCCCAAACCG GCCAAGTGAT AAACACGAGG
2461 ATGGCAAGAG ACCCACACAC CGGAGGAGCG CCCGCTTGGG GGAGGAGGTG CCGTTTGTTC
2521 ATTTTCTGAC ACTCCCGCCC AATATACCCC AAGCACCGAA GGGCCTTCGT TTTAAGACCG
2581 CATTCTCTTT ACCCACTACA AGTTGCTTGA AGCCAGAAT GGTGTGTATT TAGGCAGGCG
2641 TGGGAAAATT AAGTTTGTG GCTTTAGGAG AATGAGTCTT TGCAACGCCC CCGCCCTCCC
2701 CCCGTGATCC TCCCTTCTCC CCTCTTCCCT CCTGGGCGA AAAACTTCTT AAAAAAGTT
2761 AATCACTGCC CCTCCTAGCA GCACCCACCC CACCCCCAC GCGCCTGGG AGTGGCCTCT
2821 TTGTGTGTAT TTTTTTTTTC CTCCTAAGGA AGGTTTTTTT TCTTCCCTCT AGTGGGCGGG
2881 GCAGATAGAG TAGCCAAGAT GTGACTTTGA AACCTCAGC GTCTCAGTGC CCTTTGTTC
2941 TAAACAAAGA ATTTTGTAAT TGGTTCTACC AAAGAAGGAT ATAATGAAGT CACTATGGGA
3001 AAAGATGGGG AGGAGAGTTG TAGGATTCTA CATTAATTCT CTTGTGCCCT TAGCCACTA
3061 CTTCAAGATT TCCTGAAGAA AGCAAGCCTG AATTGGTTTT TTAATTTGCT TTAATAATTT
3121 TTTTAACTG GGTAAATGCT TGCTGAATTG GAAGTGAATG TCCATTCTCT TGCCCTCTTT
3181 GCAGATATAC ACTTCAGATA ACTACACCGA GGAAATGGGC TCAGGGGACT ATGACTCCAT
3241 GAAGGAACCC TGTTCCTGTC AAGAAAATGC TAATTTCAAT AAAATCTTCC TGCCACCAT
3301 CTAATCCATC ATCTTCTTAA CTGGCATTGT GGGCAATGGA TTGTCATCC TGGTCATGGG
3361 TTACCAGAAG AAAGTGAAGG GCATGACGGA CAAGTACAGG CTGCACCTGT CAGTGGCCGA

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3421 CCTCCTCTTT GTCATCACGC TTCCCTTCTG GGCAGTTGAT GCCGTGGCAA ACTGGTACTT
3481 TGGGAACTTC CTATGCAAGG CAGTCCATGT CATCTACACA GTCAACCTCT ACAGCAGTGT
3541 CCTCATCTG GCCTTCATCA GTCTGGACCG CTACCTGGCC ATCGTCCACG CCACCAACAG
3601 TCAGAGGCCA AGGAAGCTGT TGGCTGAAAA GGTGGTCTAT GTTGGCGTCT GGATCCCTGC
3661 CCTCCTGCTG ACTATPCCC ACTTCATCTT TGCCAACGTC AGTGAGGCAG ATGACAGATA
3721 TATCTGTGAC CGCTTCTACC CCAATGACTT GTGGGTGGTT GTGTTCCAGT TTCAGCACAT
3781 CATGGTTGGC CTTATCTGCG CTGGTATTGT CATCCTGTCC TGCTATTGCA TTATCATCTC
3841 CAAGCTGTCA CACTCCAAGG GCCACCAGAA GCGCAAGGCC CTCAAGACCA CAGTCATCCT
3901 CATCCTGGCT TTCTTCGCTT GTTGGCTGCC TTAATACATT GGGATCAGCA TCGACTCCTT
3961 CATCCTCCTG GAAATCATCA AGCAAGGGTG TGAGTTTGAG AACACTGTGC ACAAGTGGAT
4021 TTCCATCACC GAGGCCCTAG CTTTCTTCCA CTGTTGTCTG AACCCCATCC TCTATGCTTT
4081 CCTTGGAGCC AAATTTAAAA CCTCTGCCCC GCACGCACTC ACCTCTGTGA GCAGAGGGTC
4141 CAGCCTCAAG ATCCTCTCCA AAGGAAAGCG AGGTGGACAT TCATCTGTTT CCACTGAGTC
4201 TGAGTCTTCA AGTTTTCACCT CCAGCTAACA CAGATGTAAA AGACTTTTTT TTATACGATA
4261 AATAACTTTT TTTTAAGTTA CACATTTTTC AGATATAAAA GACTGACCAA TATTGTACAG
4321 TTTTATTGTC TTGTTGGATT TTTGTCTTGT GTTCTTTTAG TTTTGTGAA GTTTAATTGA
4381 CTTATTATATA TAAATTTTTT TTGTTTCATA TTGATGTGTG TCTAGGCAGG ACCTGTGGCC
4441 AAGTTCCTAG TTGCTGTATG TCTCGTGGTA GGAATGTAGA AAAGGGAAGT GAACATTCCA
4501 GAGCGGTGAG TGAATCACGT AAAGCTAGAA ATGATCCCCA GCTGTTTATG CATAGATAAT
4561 CTCTCCATTC CCGTGGAAAG TTTTCTCTGT TCTTAAGACG TGATTTTGCT GTAGAAGATG
4621 GCACTTATAA CCAAAGCCCA AAGTGGTATA GAAATGCTGG TTTTTCAGTT TTCAGGAGTG
4681 GGTGATTTTC AGCACCTACA GTGTACAGTC TTGTATTAAG TTGTTAATAA AAGTACATGT
4741 TAAACTTACT TAGTGTATG TTCTGATTTC TGTTGACATT CTTTGGGCTA GTAGAAGACA
4801 AAAGTAATAC ATTTATGGTA TGCAAAGCAC TATCCTAGGT ATTTTATTGT AATATTTTAC
4861 TTACCCTCTA TCACAACCTCT GATAGATTCT GCTTCTGTGA CTAATTACAT TTTATAGAAG
4921 AGGAAACGGA GGCACAGAAA GCCTAAGTAA CTTGGTTAAA GGCATGTAGT AAGTATCAAA
4981 TCCTGTATTT TAAACCAGGT AACATGACTT AACGAATCTG AAGCCTTCAC CACTTTAAAT
5041 TCAAATGGAA GTTTAGAAAT GGCCAGCCAG CACCTATTTG TATGAAAGGT CATCTTCAG
5101 AGGATAAGCA TGTATAAAGA AGAAAGGTA TGCAGTCGT TTTGGATTTT ACTCCACCAT
5161 C

(2) INFORMATION FOR SEQ ID NO:2464:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 877 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2464:

1 AGGATGATGG TGATGGGGAA CTAAATGGGG AAATATGGAA GGTCACAGGA AAAGTTAACA
61 CAAGTTAGCA AAAAGTTAAC ATAACACAAA AAGGTCTTGC AGGAAAAAAA AAAGAAAAGA
121 AAAGAAAGAA AAGTCTCCA AGAATGGTTT GGACAGCCAA AATGAATACT TATAGTCACG
181 TATACCTGCT CACTCTGAC GCTTCACTCA CACACAGCAC AGGATCTGGT GAGGCTATCA
241 CTAAATGTGC CACATTGTGG TTAAGTTTTC CCTGATTAAAC GAAATGCTCA CACTTCTAAA
301 CTGAGGTCTT TACAGTAGAT TCCTTTTGCA AGATTGTTAC TGGCTTACAA CTTAAAAATA
361 AAGGAAAATC ACAAGGAAAG AAAAGTGGGG AAAAAATCGG AGGAAACTTG CCCCTGCCCT
421 GGCCACCGGC AAGGCTGCCA CAAAGGGGTT AAAAGTTAAG TGGAAAGTGA GCTTGAAGAA
481 GTGGGATGGG GCCTCTCCAG GAAAGCTGAA CGAGGCATCT GGAGCCCGAA CAAACCTCCA
541 CCTTTTTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTTGGGA
601 CCAACCAGGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG CCAAGACTAA
661 AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCCC ACCCCTCTCC CGGGCGGAGG
721 GGGCGGGAAG AGCGCGTCTT GGCAAGCCG AGTAGTGTCT TCCACTCGGT GCGTCTCTCT
781 AGGAGCCGCG CGGGAAGGAT GCTGGTCCGC AGGGGCGCGC GCGCAGGGCC CAGGATGCCG
841 CGGGGCTGGA CCGCGCTTTC CTGCTGAGT TTGCTGCT

(2) INFORMATION FOR SEQ ID NO:2465:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2615 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2465:

1 CCTTTTTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTTGGGA
61 CCAACCAGGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG CCAAGACTAA
121 AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCCC ACCCCTCTCC CGGGCGGAGG

181 GGGCGGGAAG AGCGCGTCCT GGCCAAGCCG AGTAGTGTCT TCCACTCGGT GCGTCTCTCT
241 AGGAGCCGCG CGGGAAGGAT GCTGGTCCGC AGGGGCGCGC GCGAGGGCCC AGGATGCCGC
301 GGGGCTGGAC CGCGCTTTGC TTGCTGAGTT TGCTGCCTTC TGGGTTCATG AGTCTTGACA
361 ACAACGGTAC TGCTACCCCA GAGTTACCTA CCCAGGGAAC ATTTTCAAAT GTTCTACAA
421 ATGTATCCTA CCAAGAACT ACAACACCTA GTACCCTTGG AAGTACCAGC CTGCACCCCTG
481 TGTCTCAACA TGGCAATGAG GCCACAACAA ACATCACAGA AACGACAGTC AAATTCACAT
541 CTACCTCTGT GATAACCTCA GTTTATGGAA ACACAACTC TTCTGTCCAG TCACAGACCT
601 CTGTAATCAG CACAGTGTTC ACCACCCAG CCAACGTTTC AACTCCAGAG ACAACCTTGA
661 AGCCTAGCCT GTACCTGGA AATGTTTCAG ACCTTTCAAC CACTAGCACT AGCCTTGCAA
721 CATCTCCCAC TAAACCCTAT ACATCATCTT CTCCTATCCT AAGTGACATC AAGGCAGAAA
781 TCAAATGTTC AGGCATCAGA GAAGTGAAAT TGACTCAGGG CATCTGCCTG GAGCAAAATA
841 AGACCTCCAG CTGTGCGGAG TTTAAGAAGG ACAGGGGAGA GGGCCTGGCC CGAGTGCTGT
901 GTGGGGAGGA GCAGGCTGAT GCTGATGCTG GGGCCAGGT ATGCTCCCTG CTCCTTGCCC
961 AGTCTGAGGT GAGGCTCAG TGTCTACTGC TGGTCTTGGC CAACAGAACA GAAATTTCCA
1021 GCAAACCTCCA ACTTATGAAA AAGCACCAT CTGACCTGAA AAAGCTGGGG ATCCTAGATT
1081 TCACTGAGCA AGATGTTGCA AGCCACCAGA GCTATTTCCA AAAGACCTG ATTGCACTGG
1141 TCACCTCGGG AGCCTGCTG GCTGTCTTGG GCATCACTGG CTATTTCTCT ATGAATCGCC
1201 GCAGCTGGAG CCCACAGGA GAAAGGCTGG GCGAAGACCC TTATTACACG GAAAACGGTG
1261 GAGGCCAGGG CTATAGCTCA GGACCTGGGA CCTCCCCTGA GGCTCAGGGA AAGGCCAGTG
1321 TGAACCGAGG GGCTCAGAAA AACGGGACCG GCCAGGCCAC CTCCAGAAAC GGCCATTGAG
1381 CAAGACAACA CGTGGTGGCT GATACCGAAT TGTGACTCGG CTAGGTGGGG CAAGGCTGGG
1441 CAGTGTCCGA GAGAGCACCC CTCTCTGCAT CTGACCACGT GCTACCCCA TGCTGGAGGT
1501 GACATCTCTT ACGCCCAACC CTTCCCCTCT GCACACACCT CAGAGGCTGT TCTTGGGGCC
1561 CTACACCTTG AGGAGGGGGC AGGTAACTC CTGTCTTTTA CACATTCGGC TCCTTGAGC
1621 CAGACTCTGG TCTTCTTTGG GTAAACGTGT GACGGGGGAA AGCCAAGGTC TGGAGAAGCT
1681 CCCAGGAACA ATCGATGGCC TTGCAGCACT CACACAGGAC CCCCTTCCCC TACCCCTCC
1741 TCTCTGCCCG AATACAGGAA CCCCCAGGG AAAGATGAGC TTTTCTAGGC TACAATTTTC
1801 TCCCAGGAAG CTTTGATTTT TACCGTTTCT TCCCTGTATT TTCTTTCTCT ACTTGAGGA
1861 AACCAAAGTA ACCTTTTGCA CCGTCTCTCT TGTAATGATA TAGCCAGAAA AACGTGTTGC
1921 CTTGAACCAC TTCCCTCATC TCTCTCCAA GACACTGTGG ACTTGGTCAC CAGCTCCTCC
1981 CTTGTTCTCT AAGTTCCACT GAGTCCATG TGCCCCCTCT ACCATTGCA GAGTCTGCA
2041 CAGTTTCTG GCTGGAGCCT AGAACAGGCC TCCCAAGTTT TAGGACAAAC AGCTCAGTTC
2101 TAGTCTCTCT GGGGCCACAC AGAACTCTT TTTGGGCTCC TTTTCTCCC TCTGGATCAA
2161 AGTAGGCAGG ACCATGGGAC CAGGTCTTGG AGCTGAGCCT CTCACCTGTA CTCTTCCGAA
2221 AAATCCTCTT CCTCTGAGGC TGGATCCTAG CCTTATCCTC TGATCTCCAT GGCTCCTCC
2281 TCCCTCCTGC CGACTCCTGG GTTGAGCTGT TGCTCAGTC CCCCACAGA TGCTTTTCTG
2341 TCTCTGCCTC CCTCACCCCTG AGCCCCCTCC TTGCTCTGCA CCCCATATG GTCATAGCCC
2401 AGATCAGCTC CTAACCCTTA TCACCAGCTG CCTCTTCTGT GGGTGACCCA GGTCTTGT
2461 TGCTGTTGAT TTCTTTCCAG AGGGGTTGAG CAGGGATCCT GGTTCATG ACGGTTGGAA
2521 ATAGAAATTT CCAGAGAAGA GAGTATTGGG TAGATATTTT TTCTGAATAC AAAGTGATGT
2581 GTTTAAATAC TGCAATAAA GTGATACTGA AACAC

(2) INFORMATION FOR SEQ ID NO:2466:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3422 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2466:

AGGATGATGG TGATGGGGAA CTAAATGGGG AAATATGGAA GGTCACAGGA AAAGTTAACA CAAGTTAGCA AAAGTTAAC
ATAACACAAA AAGGTCTTGC AGGAAAAAAA AAAGAAAAGA AAAGAAAGAA AAAGTCTCCA AGAATGGTTT
GGACAGCCAA AATGAATACT TATAGTCAG TATACCTGCT CACTCCTGAC GCTTCACTCA CACACAGCAC
AGGATCTGGT GAGGCTATCA TAAATGTGC CACATTGTGG TTAAGTTTAA CCTGATTAAC GAAATGCTCA CACTTCTAAA
CTGAGGTCCT TACAGTAGAT TCCTTTTGGC AGATTGTTAC TGGCTTACAA CTTAAAAATA AAGGAAAATC
ACAAGGAAAG AAAAGTGGGG AAAAAATCGG AGGAAACTTG CCCCTGCCCT GGCCACCGGC AAGGCTGCCA
CAAAGGGGTT AAAAGTTAAG TGGAAGTGGA GCTTGAAGAA GTGGGATGGG GCCTCTCCAG GAAAGCTGAA
CGAGGCATCT GGAGCCCGAA CAAACCTCCA CCTTTTGGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT
AACGCCCTCC GCCTTTGGGA CCAACCAGGG GAGTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG
CCAAGACTAA AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCC ACCCCTCTCC CCGGCGGAGG
GGGCGGGAAG AGCGCGTCCT GGCCAAGCCG AGTAGTGTCT TCCACTCGGT GCGTCTCTCT AAGGAGCCGC
CGGGAAGGAT GCTGGTCCGC AGGGGCGCGC GCGCAGGGCC CAGGATGCCG CCGGGCTGGA CCGCGCTTGG
CTTGCTGAGT TTGCTGC CTTTCTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTGGGA

CCAACCAGGG	GAGCTCAAGT	TAGTAGCAGC	CAAGGAGAGG	CGCTGCCTTG	CCAAGACTAA	AAAGGGAGGG
GAGAAGAGAG	GAAAAAAGCA	AGAATCCCC	ACCCCTCTCC	CGGGCGGAGG	GGGCGGGAAG	AGCGCGTCTT
GGCCAAGCCG	AGTAGTGTCT	TCCACTCGGT	GCGTCTCTCT	AGGAGCCGCG	CGGGAAGGAT	GCTGGTCCGC
AGGGGCGCGC	GCGAGGGCCC	AGGATGCCGC	GGGGCTGGAC	CGCGCTTTGC	TTGCTGAGTT	TGCTGCCTTC
TGGGTTTCATG	AGTCTTGACA	ACAACGGTAC	TGCTACCCCA	GAGTTACCTA	CCCAGGGAAC	ATTTTCAAAT
GTTTCTACAA	ATGTATCCTA	CCAAGAAACT	ACAACACCTA	GTACCCCTTG	AAGTACCAGC	CTGCACCCTG
TGTCTCAACA	TGGCAATGAG	GCCACAACAA	ACATCACAGA	AACGACAGTC	AAATTACAT	CTACCTCTGT
GATAACCTCA	GTTTATGGAA	ACACAAATC	TTCTGTCCAG	TCACAGACCT	CTGTAATCAG	CACAGTGTTC
ACCACCCAG	CCAACGTTTC	AACTCCAGAG	ACAACCTTGA	AGCCTAGCCT	GTCACTGGA	AATGTTTCAG
ACCTTTCAAC	CACTAGCACT	AGCCTTGCAA	CATCTCCAC	TAAACCCTAT	ACATCATCTT	CTCCTATCCT
AAGTGACATC	AAGGCAGAAA	TCAAATGTTC	AGGCATCAGA	GAAGTGAAAT	TGACTCAGGG	CATCTGCCTG
GAGCAAAATA	AGACCTCCAG	CTGTGCGGAG	TTTAAGAAGG	ACAGGGGAGA	GGGCCTGGCC	CGAGTGCTGT
GTGGGGAGGA	GCAGGCTGAT	GCTGATGCTG	GGGCCCAGGT	ATGCTCCCTG	CTCCTTGCCC	AGTCTGAGGT
GAGGCCCTCAG	TGCTACTGCT	TGGTCTTGCC	CAACAGAAAC	GAAATTTCCA	GCAAACTCCA	ACTTATGAAA
AAGCACCAT	CTGACCTGAA	AAAGCTGGGG	ATCCTAGATT	TCACTGAGCA	AGATGTTGCA	AGCCACCAGA
GCTATTCCCA	ATTGCACCTG	TCACCTCGGG	TCACCTCGGG	AGCCCTGCTG	GCTGTCTTGG	GCATCACTGG
CTATTTCCTG	ATGAATCGCC	GCAGCTGGAG	CCCCACAGGA	GAAAGGCTGG	GCGAAGACCC	TTATTACACG
GAAAACGGTG	GAGGCCAGGG	CTATAGCTCA	GGACCTGGGA	CCTCCCCTGA	GGCTCAGGGA	AAGGCCAGTG
TGAACGAGG	GGCTCAGAAA	AACGGGACCG	GCCAGGCCAC	CTCCAGAAAC	GGCCATTGAG	CAAGACAACA
CGTGGTGGCT	GATACCGAAT	TGTGACTCGG	CTAGGTGGGG	CAAGGCTGGG	CAGTGTCCGA	GAGAGCACCC
CTCTCTGCAT	CTGACCACGT	GCTACCCCA	TGCTGGAGGT	GACATCTCTT	ACGCCCAACC	CTTCCCACT
GCACACACCT	CAGAGGCTGT	TCTTGGGGCC	CTACACCTTG	AGGAGGGGGC	AGGTAACTC	CTGTCTTTTA
CACATTGCGC	TCCCTGGAGC	CAGACTCTGG	TCTTCTTTGG	GTAAACGTGT	GACGGGGGAA	AGCCAAGGTC
TGGAGAAGCT	CCCAGGAACA	ATCGATGGCC	TTGACGACT	CACACAGGAC	CCCTTCCCTC	TACCCCTCC
TCTCTGCCGC	AATACAGGAA	CCCCCAGGGG	AAAGATGAGC	TTTTCTAGGC	TACAATTTTC	TCCCAGGAAG
CTTTGATTTT	TACCGTTTTCT	TCCCTGTATT	TTCTTTCTCT	ACTTTGAGGA	AACCAAAGTA	ACCTTTTGCA
CCTGCTCTCT	TGTAATGATA	TAGCCAGAAA	AACGTGTTGC	CTTGAACCAC	TTCCCTCATC	TCTCTCCAA
GACACTGTGG	ACTTGGTCAC	CAGCTCCTCC	CTTGTCTCT	AAGTTCCACT	GAGCTCCATG	TGCCCCCTCT
ACCATTGCA	GAGTCTTGCA	CAGTTTCTTG	GCTGGAGCCT	AGAACAGGCC	TCCCAAGTTT	TAGGACAAAC
AGCTCAGTTC	TAGTCTCTCT	GGGGCCACAC	AGAAACTCTT	TTTGGGCTCC	TTTTTCTCCC	TCTGGATCAA
AGTAGGCAGG	ACCATGGGAC	CAGGTCTTGG	AGCTGAGCCT	CTCACCTGTA	CTCTTCCGAA	AAATCTCTT
CCTCTGAGGC	TGGATCCTAG	CCTTATCCTC	TGATCTCCAT	GGCTTCTCTC	TCCCTCCTGC	CGACTCCTGG
GTTGAGCTGT	TGCTCAGTC	CCCCAACAGA	TGCTTTTCTG	TCTCTGCCTC	CCTCACCTTG	AGCCCCCTCC
TTGCTCTGCA	CCCCCATATG	GTCATAGCCC	AGATCAGCTC	CTAACCTTTA	TCACCAGCTG	CCTCTTCTGT
GGGTGACCCA	GGTCTTGT	TGCTGTGAT	TTCTTTCCAG	AGGGGTGAG	CAGGGATCCT	GGTTTCAATG
ACGGTTGGAA	ATAGAAATTT	CCAGAGAAGA	GAGTATTGGG	TAGATATTTT	TTCTGAATAC	AAAGTGATGT
GTTTAAATAC	TGCAATTAAA	GTGATACTGA	AACAC			

(2) INFORMATION FOR SEQ ID NO:2467:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8124 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2467:

1	TCCCAGTTAA	TACATAATCA	ATATGCAATT	TATTAATACA	TCTCTCCATG	TCCACTCCCC
61	CTGTATCTTG	CCATTCTTGA	CCTGCATTTT	CATCCTCCTT	ACCTTCCCTA	GAGGCCAACT
121	CATTTTCTTT	GAAAAACCTG	GCATTTCCCA	GAAAAAAAG	TGAAGGGCTG	GGAGCTGTCC
181	GTTGTCTGTA	TTTGTCTCCT	CTGCCCTTGC	TTCCAAATGT	GGTTGGAAAG	AAGCACTATT
241	GAAAAATCCC	TAAACGCACC	CCTGCAGGGT	TGGCTCTACC	CTGTAGCCAT	GGACACATGC
301	TGTTGATACC	ACCTGCCTCA	TGAGTCTCAC	ATAATTTGCC	CTTTCACACT	ATCTACCCCA
361	TCAGCCTTAC	CAAAACCATA	CCTGCATCCT	GGGCAGCATC	TGCCCTTCAA	GAGACTAAGG
421	AATCTCCTTG	CAACCAAGAA	TGACTAGACC	AATGAGACAC	CCTTTAAGGC	CCAGCACAA
481	TATAGAAATC	CCACAATATG	GTAATCCCAG	TAAGGAGCTA	TCAAGCCATT	GCAGGACCAT
541	CTAGAATACA	ACTAGAGTAT	AGTTCCTTTC	AATCCAGGAA	CTATACTCTA	ACAGCTTGGC
601	TCACAGGAAC	CAGAAGTGAA	GATGATGAGG	ATCAGGGCTG	AGCCTGTGAG	CACCAGCTCC
661	ACCACTGACA	CCAACCACAG	ATTAAACAAG	CATCTTGTGG	ACCCCTGGGA	TGGAAAGAAT
721	AGTTGTTGCC	TTATCAACCT	CCCCACAGC	CCACACAGAA	AAGATAAAAT	CATCATGGCT
781	ACAGTGTTAC	AGAAGATGAT	GACCCAGGGA	GTAGGCCTGC	CTGAGTGAAT	GCTGAGAGTG
841	ATAATGGGAG	CAGTAGCATC	TCAGAGACTA	CAGCAGAAAC	CATCCACATA	AAGAGCTTTG
901	CCCAACTTAA	TGATAAAGGG	CACCCTCAGA	GACTCTCCCT	ACTTTAATAT	TAGCCCATTG
961	CAGAAATGGT	GAGTGGAAG	AGAAATCTTA	GGAAGAACCC	CTTAAAAAG	CAAAATGCTT

1021 TTTAGGTTTG TGCTGAAGAG CCTGGAAGAG AAATAAGGAC ACACACGCTG AGAAATCTTC
 1081 CTCCTGCCCC AACACTGGGA TAATCTCCAA GGATCTCTCC ATATCTCATT CTCCTGGATA
 1141 CACTGTCCAC TCAGAAATAT TGTGCAGAGT GCAGTAATTC AAAAGTGAGC TATTGTGTTA
 1201 GGAGTGAAGG CAAGAGTATC GTAAAATAAA TCAAATTTGA AATGAATTCT CTAAATTTGC
 1261 TTTATAGATG TTTAATGTAA GCCAGCAGCT ATTAACGAT AAACCTTAAA TTCGAGAAAA
 1321 ACTTGGTCAT TCAGAACTA TAGAAACAGG CAGGACTTAT TGCGAGGGCA AACACAGAGT
 1381 GAGCTCCAGC CTGCTTCAGG AAAATCTGCC AGTGCCATGA AGGATGTACT CTGTCTGCTC
 1441 CACTGCACTA CTGCTCAGTA TGAGCCCATG CCATCAGCTG TCCCTGACCC ACAGGAGTTC
 1501 TTTAGAAGAG ACTGGTCAAC AAAAGTTTCT AGGGTGT TTT ATACCTGCCA ACTCGAGGGT
 1561 TAAAACAAGT TGCATAGAAA TGCTCAATCA AGAAAGACAC AGTCATTACT CAGAGAATAA
 1621 TAAACAGCCT GGCAGCACAT GAATGAATAG AAAAAGATG TTACATGCAA AGCATGAAAT
 1681 AACCAAAATTC CATAACGAT GTTAATCTGT AATGTGTTTA GGAGAATTTA GAGGAAGTAT
 1741 AAGATTTATT CTTCATCAA AAAAATTATA GCCAATGAGG ATATATCTAT CAATTATCCA
 1801 TCAAGTGGTG ATATGGCAGC ACAAGGTAAA ACACAAAGGA ATAAAACCAA CGTTTATATA
 1861 GAACCAATCA TGTGGCATT CACATTGAGC ATCATATTTA ATTCTGAAAA AAATCCTTGT
 1921 ACTGTATCAT TCTTCATATT TTATGGATGC AGTAACFAAG GCTGAGAACT TTAATAATTT
 1981 TCCTAAGTTC AGACACATAG CTAAGTGGCA GAACCAAGAT TCAAACTCAC CCCATCTAAC
 2041 TGCAGAGCAA ACTGCATGCC TTAAATGTCA AAGTGAATAC TAGCACAGTT AATACAATGT
 2101 TTGGAAACTC AGAGAAGGAA TGATCCCTCT GCATTATAGT TACTAAGGAA TCATTGCCAT
 2161 TATTTAAATG CAGTGCCTTC TACATCAGGC CCAAATTTTC TGTCTACTA ACTGTGAATC
 2221 AAGACTTGAT TCAACCTCTA CTGAGTATC TGCCGCAATG AGAAATCACT TACCTCCACT
 2281 AACCAACAT TTATTTTATA ACAACAGATT GTTAGTAAGT CCTTTCTTAT ACATACTCAA
 2341 CAGCTGCTTC CCAAGATGCT GTAGGATTAT GTCTAGAGTC AAAGTAGCCA GAAGCAATGT
 2401 CCAAAATACA CCATAACACT GTGCAGCAAA GGTCCTACTA CCACTTGTTT GGCCCAACA
 2461 TTCTAGGCAG CACTGGATAT CTGAATCATC AATTATTTCC ACAAACTG ACCTCTCTAC
 2521 CAGTCACCT CACTAGAAGA ATTAATTCCA CATGATAATA GCTCCCTCAT GTTACTCCCT
 2581 TCTAAGTCAA ATTGTACACC CCTTTATCTG ATTAACAGAG TCTAAGTCAC ATGACCTAAA
 2641 TGCAAGAGAA CTGGGAATGG ACGTTTGTGG ATTCTACCTT AGTAAGGCAA AGTTATCATT
 2701 GGGAAATFCT CTAATACAGG AAGGGTGTTC CAGAGACATT AAGGAGCCAT ATAAATGGAA
 2761 AATGTCCACT ACAATCCATC ACTTGGTTGC CCCACATCAA CATTCTTCT TTTGCCACAC
 2821 TTAAAGTTTC CAAGAACAAA AATTATCCCA CTGAACATAA TCTTTACTAT CTTTATATA
 2881 AAGGAAAATT AGACTTGACT CAGCAGAACT GAAATAACCC AGCTCTAACA GTTACTGCTT
 2941 TTAACCTCAA GTACTGTGTC TCTAGGTGAT ACCTGCTCCA ACAATAGTTT GGTCACATTT
 3001 TCAATTTGAT ATTCTCTAGT CTCCCACTT GATAACTGTA CCCTAAACCA TAAAGTTCAC
 3061 TACCAACATG CTATATATAA AATAACCAAA GGGGGAAGAA GAAAGAGAAA AAGGAAATCT
 3121 CTTAAAATAC ACAGGTATAC ATATGACAAA GCAAAGAAGG AAATGTGAGC AGATAGTGCA
 3181 GTCCTCGTTT CTGAAATTGG TCCCCTGACT GGGGCTATAC CTATTCCATT TCCTCACCTT
 3241 CAGCCAGGCA GGTGGAGCAA AAACCTAAGT CTGTTGGTAT CTGAATCTTG ATGCTGTGGA
 3301 GCTGTCTTAC TAGCCCCAGA CTACCTGCCT CTCAATTTCT AATTATATCA GTGAAAGCAA
 3361 ACAGCTTTGA TTTGTTAAG CCTCTGATT TTTGGTCTAA CTGATGTAAG ACCACAAGGA
 3421 CAAGAGTTCT CAGCTCCGG ATTCTCTTCT GTTCTGTAA TGGTGAAATG CCCGAGAGAA
 3481 GAGTTGCCAA CTTTGGCAAA TAAAAAATAC AGGATTCCAG TTAAATTCAT ATTTAGATAA
 3541 ACAACAATTT TTTAGTATTA GTGTGTCCCA TTCAATATTT GGACATACTT AACTAAAAAA
 3601 TGATTTGTTG TTCATCTGAA ATACAAATTT AACTGGGCAT TCTGAATATT CTCTGGCAAC
 3661 CCCCAGAGA GTGAAGAAAG TGGTACAAGG AACTTAAGA AGACCAGATT TGAAAAGACA
 3721 TTACGGATGT GTTTAAATGT CTTATTCTAG AGAGAGTTAG AGCTGTAGGT AGAACTTGGG
 3781 AAATTAAGTT AAAAGCAGAC ACAGAGACCT GGCCAATATA TACTAAGGAG TGGATCACTC
 3841 TGGTCACAAG CCCAACCTGA GACCAAGGGC ATAGTGAGAT GATTTGGGAA AGGCACTTAT
 3901 ACACTACTCA TCCCGCTCTT TGAACATAAT GCCTTATAAA TCTCCAAGAG AAATGACAGT
 3961 CCACCATGTG GACTGCTTTC TGTAAGTCCA GGGAAAATAA AAGCTATGTG CTTGAAACCC
 4021 ACTTCTGATA TTATAAGGTG TGTGATCTTT GTCATGTTAA TGGGTCTGAG TATCAATTCT
 4081 ACAATTGTAA AGTGACAGTA ATGGTGTGTC CCCAGGTTGT TGTGGAAAGC TTGATTCTTA
 4141 ATGCAACAGT AGGAAACCCC AGCCTCTCTG GAGCAAACAC CCTTCTACAT CTTTACTTCC
 4201 CCTGCACATT GGCAGGACTC TATTCCTCTA TTTCTCTCTA GTGCTAGAGC AGAAAGGGAC
 4261 CTTGATTTGA TATCAGGAAA ATCTATTTCT GAACCATAAG CTATGATAGC TGATTAAAAA
 4321 AATTGACTAT CATGACATGA TAATGATCAT AATGGTAATA CATATTGATA GGGTTGCCGT
 4381 GAAAGTAATA ATATATCTAA GAGTTGTGAC AATATATGAT ACGCCTAGAC TCTCAGAAAA
 4441 TGCTAATTC AATCCCAATT GCTCTTTGCA TAAAGTTCTG TCCTAGGGTC TGTTCTTTTC
 4501 CCACATCTAC CCTCCTTGGA TCTCTCTTCT GTCTTTTCA TGTGGTTTCA AGGAGGAGAG
 4561 AGATCCAGGT CAATGTTTTT CAAATTACAA GGAATTATCA TTTAAATGGG GAAGAAGCTC
 4621 AAGTTTTGAC GTGTAGTGGA ATTGGAGTGG AGTGGAGTGG AATGGAACT AACAGGAAGA
 4681 CACTGCACAT GGTAAAGATA AAGATTGTTT CCTGAAACCT TTAATTTGTG CTTACATACT

4741 CACACATACA TATGTGCATG CACTGGGACT CTGCAATATG CATTTCTGAC TATGGAACAT
4801 AGCCATAAAA GTCTTTGCAC TGAACGTTCA GTGGGCCTTT CACAAGCTGC CCTAATTGGG
4861 AAAGAAAAAC ATGGTCCCTC CATTTCCTGC CCCCACCTCC AGAAAAAGTCA CCATAGTTGA
4921 GGGTACATCT GAGAAGCCAG CACTTGGGAG TTCAGGGCTC AAGTTCCCTT CTAGAAAAAC
4981 ACTGGGTGAT TCTAGGGGAA CTTCCGATCA GAAACAGCCA ATTCAGAGTG AGAGAAGAAA
5041 ACGTGACCAT GCAGTTCCTG TGGTTACCAG CCTTGCCCTT CTCTTGCCCT CTGGGAGTTA
5101 TAAAACCCAA GACTGGAAAG GAAAACCAGC ATTTGCTCAG GCAGCCTCTC TGGGAAGATG
5161 CTGCTTCTTC CTCTCCCTCT GCTGCTCTTT CTCTTGTGCT CCAGAGCTGA AGCTGGTGAG
5221 TATCAGGGTT CTTCCTCTG AAATCTGCAG TATCAGCTCC TGAAACAAAG ATGTTTAGTC
5281 TGAATAGCT GACTCCTAAA CAGGGTTCCA AGATCTCTCT TCAAGAGTCC CACAGAGGAA
5341 ATTTCCACTT GGGATGTGTG CCACCCACC CCCACCCCA CCCACTGCCA TTCTCTACAG
5401 CCTAGGACAC CCCAGGAAC AAGGAATTC ACCTCAATTG TAGAAAAGCC CAGAGCAAGT
5461 GGAAGGAAAA GGGGTATCCC CAGGAAAAACA GACATGTCTT CTTAATCTTC TGAGCATCAG
5521 GGCTACCCAT TACTTTGTGA CTTTCTCACT CTGTGACCAT GCTCAAGAGC TATGGAGAAA
5581 TCTAAAACAG GAACCTGGAC AGTGGGTCTT ACACAGAGAC AGAGGAGAGT GGGCCAGGGC
5641 AAGGTGGGAG TGGGAGAAGT CTGAGATGAA AACATCAGAA TGGAGCAGAG GCAAGAATGA
5701 GATTTACACT GGGAGGTTAT GGGTGGGGAA AGATACGAAA TACAGGAGAC AGGAGAGGGA
5761 AGATGGGCGG AACACAGGTG GAGAATGAGA TTCCAGGGAA GCCTAGCTCA GCTTTAACCC
5821 AATTTGTCCA TTCATTGGAG AGAGTATCTA TGGCCGTGTT CAAACCTTGG GGTGCTCTGT
5881 TCAGGGGAGC ATCATCGGGG GCACAGAATG CAAGCCACAT TCCCGCCCTT ACATGGCCTA
5941 CCTGGAAATT GTAACCTCCA ACGGTCCCTC AAAATTTTGT GGTGGTTTCC TTATAAGACG
6001 GAACTTTGTG CTGACGGCTG CTCATTGTGC AGGAAGGTGA GACAACAGGG TCTATTATC
6061 TCCAAATGGG AGATGAACAA CCAGAGTAGC ATCCAGGAAT ACACCTGCAC TGGGGACTGA
6121 AGAGGGGGTC CTGGTCTTGG TCAACTTTCA GGAGAGGGAA GACTTTGGGC TGAAAGACTT
6181 TAGTCTGTGT TTGAATAGTT CCTTGAGCCT CAGTCACTGA GCTAAGCTCC CTTCGGAGGA
6241 AAAGGAGGTC CTGTCCGAAG GTCCCTCTTG TTGCAGTAGC ACCCTCACC CCTACCCAAC
6301 TCAAGACACA CGGCTCACTT TTCAGGGCCC CACCCAGTCT CAGGGGCACT TCCTCTATGG
6361 CCTTTTCAAG AACACTGGCT CTAGTTCTCA GGGTCTTGAA CCCATCATT TATGGGAGCA
6421 GAGAACAGGT CTACATAAGA CCCCCACTTT CCCGTTTAA CTGATATCTC CTGCTTCAGG
6481 GGCTGGCCCT CATGCAGGT TCCCTGAATT AGGAAGTGTG AACCTGTGCC CCTGAGTCCT
6541 CCCTGGCCTG TTCAGTCCCC AGCAATTCCA GGGGTGCTAG AAATTGTGTC TGTTTCTGA
6601 GAAAGCTCTT TCATGAGTTA AGCCTGAGCC CTCAAATGCC ACAAGTGGCC CATGAAAAGG
6661 GAGATGGGTA GAGTCCGCN ACCCAGTGAC AGAGTTTAGT CCTCTTTTCT CAGAATGAGC
6721 TCACCTCAGA AGAAACCCCA AGCCATCACT GTCGCCTCCT TTTCTTCTCT TCTTCTCAC
6781 AGCAGGTCTA TAACAGTCAC CCTTGGAGCC CATAACATAA CAGAGGAAGA AGACACATGG
6841 CAGAAGCTTG AGGTTATAAA GCAATTCCGT CATCCAAAAT ATAACACTTC TACTCTTCA
6901 CACGATATCA TGTTACTAAA GGTGACAACA CCTCTCTTCT CCCTTTCCAC TTCCATTCT
6961 CCTAAGCTTC TCCTTCAGGT CCTCATTGCC CTGAATTTT CTTAGGACTT GGCTATAACA
7021 TGAAGCTACT CACCCTGTCC CTCCCTGATC ACCTCCAAT GTCCAGAGCC CATTTCGAGG
7081 ACTGACAGTC CTTCATTCCC TTCACAGTTG AAGGAGAAAG CCAGCCTGAC CCTGGCTGTG
7141 GGGACACTCC CCTTCCATC ACAATTCAAC TTTGTCCAC CTGGGAGAA GTGCCGGGTG
7201 GCTGGCTGGG GAAGAACAGG TGTGTTGAAG CCGGGCTCAG ACACTCTGCA AGAGGTGAAG
7261 CTGAGACTCA TGGATCCCA GGCCTGCAGC CACTTCAGAG ACTTTGACCA CAATCTTCAG
7321 CTGTGTGTGG GCAATCCAG GAAGACAAAA TCTGCATTTA AGGTGATCCT CCAACTAGGT
7381 TTCCTCTCCA AAACCTACTG TTCAGGGACC TGAATGCTCT TAGAAGGAGA TGGGGTCAGC
7441 AGGTTGTGAG TCAGGTGACA GGGTGAGCAT CACAGGAATT GCTGTCTTCC CGTGGTCCAA
7501 GACAGCCTCT GACCATCCAT TCCAGTCTAC TGCAGTGGG GCATGGGGTG ACTGTGGAGA
7561 ATGTGGATGA CGGTCCCAAG AAAGGAAGAA GGGGCATCAG AACTAGATGT ATAAGTGAGG
7621 AGCTCCACCT CCTGGGTCTG ACTTTAGGTC TCACTGTGAC TCCAAGCTGG CTGGCAGACA
7681 GGAGTGGAG ACTTCCGGG CTCACCTTCT TCTCTCTCTC CTCCCCTAC AGGGAGACTC
7741 TGGGGGCCCT CTTCTGTGTG CTGGGGTGGC CCAGGGCATC GTATCCTATG GACGGTCGGA
7801 TGCAAAGCCC CCTGCTGTCT TCACCCGAAT CTCCCATTA CGGCCCTGGA TCAACCAGAT
7861 CTGTCAGGCA AATTAATCCT GGATCCTGAG CCAGCCTGAA GGAAGCTGG AACTGGACCT
7921 TAGCAGCAAA GTGTGTGCAA CTCATTCTGG TTCTACCTTT GGTTCCTTCA GCCACAACCC
7981 TAAGCCTCCA AGAGGTCTCC TACAGGTAAC AGAAGTTTCA ATAACTTCA GTGAAGACAC
8041 AGCTTCTAGT CGTGAGTGTG TGTCCCTCTC TGCTGCTCTC TTCTCCTGCA CATGTGACCT
8101 GATTCCAGC CCAAGCACCA AGGA

(2) INFORMATION FOR SEQ ID NO:2468:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 681 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2468:

```
1 ATCATCGGGG GCACAGAATC CAAGCCACAT TCCCGCCCCT ACATGGCCTA CCTGGAATTT
61 GTAACCTCCA ACGGTCCCTC AAAATTTTGT GGTGGTTTCC TTATAAGACG GAACTTTGTG
121 CTGACGGCTG CTCATTGTGC AGGAAGGTCT ATAACAGTCA CCCTTGGAGC CCATAACATA
181 ACAGAGGAAG AAGACACATG GCAGAAGCTT GAGGTTATAA AGCAATTCCT TCATCCAAAA
241 TATAACACTT CTAATCTTCA CCACGATATC ATGTTACTAA AGTTGAAGGA GAAAGCCAGC
301 CTGACCCTGG CTGTGGGGAC ACTCCCCTTC CCATCACAAT TCAACTTTGT CCCACCTGGG
361 AGAATGTGCC GGTGGGCTGG CTGGGGAAGA ACAGGTGTGT TGAAGCCGGG CTCAGACACT
421 CTGCAAGAGG TGAAGCTGAG ACTCATGGAT CCCAGGCCT GCAGCCACTT CAGAGACTTT
481 GACCACAATC TTCAGCTGTG TGTGGGCAAT CCCAGGAAGA CAAAATCTGC ATTTAAGGGA
541 GACTCTGGGG GCCCTCTTCT GTGTGCTGGG GTGGCCAGG GCATCGTATC CTATGGACGG
601 TCGGATGCAA AGCCCCCTGC GTCTTCACC CGAATCTCCC ATTACGGGCC CTGGATCAAC
661 CAGATCCTGC AGGCAAATTA A
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(2) INFORMATION FOR SEQ ID NO:2469:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1310 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2469:

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1 GCCACCATGG AAACCTTTG CTCAGGGCA TCCTTTTGGC TGGCACTGGT TGGATGTGTA
61 ATCAGTGATA ATCCTGAGAG ATACAGCACA AATCTAAGCA ATCATGTGGA TGATTTTACC
121 ACTTTTCGTG GCACAGAGCT CAGCTTCCTG GTTACCACTC ATCAACCCAC TAATTTGGTC
181 CTACCCAGCA ATGGCTCAAT GCACAACAT TGGCCACAGC AGACTAAAAA TACTTCAGCT
241 TTCAAATACA TTAACACTGT GATATCTTGT ACTATTTTCA TCGTGGGAAT GGTGGGGAAT
301 GCAACTCTGC TCAGGATCAT TTACCAGAAC AAATGTATGA GGAATGGCCC CAACGCGCTG
361 ATAGCCAGTC TTGCCCTTGG AGACCTTATC TATGTGGTCA TTGATCTCCC TATCAATGTA
421 TTTAAGCTGC TGGCTGGGCG CTGGCCTTTT GATCACAATG ACTTTGGCGT ATTTCTTTGC
481 AAGCTGTTCC CCTTTTGGCA GAAGTCCTCG GTGGGGATCA CCGTCCTCAA CCTCTGCGCT
541 CTTAGTGTG ACAGGTACAG AGCAGTTGCC TCCTGGAGTC GTGTTGAGG AATTGGGATT
601 CCTTTGGTAA CTGCCATTGA AATTGCCTCC ATCTGGATCC TGTCTTTTAT CCTGGCCATT
661 CCTGAAGCGA TTGGCTTCGT CATGGTACCC TTTGAATATA GGGGTGGACA GCATAAAACC
721 TGATGCTCA ATGCCACATC AAAATTCATG GAGTTCATCC AAGATGTAAA GGACTGGTGG
781 CTCTTCGGGT TCTATTCTG TATGCCCTTG GTGTGCACTG CGATCTTCTA CACCCTCATG
841 ACTGGTGAGA GTTGAACAG AAGGAATGGC AGCTTGAGAA TTGCCCTCAG TGAACATCTT
901 AAGCAGCGTC GAGAAAGTGG AAAAACAGTT TTCTGCTTGG TTGTAATTTT TGCTCTTTGC
961 TGGTTCCCTC TTCATTTAAG CCGTATATTG AAGAAAAGT TGTATAACGA GATGGACAAG
1021 AACCGATGTG AATTACTTAG TTCTTACTG CTCATGGATT ACATCGGTAT TAACCTGGCA
1081 ACCATGAATT CATGTATAAA CCCCATAGCT CTGTATTTT TGAGCAAGAA ATTTAAAAAT
1141 TGTTTCCAGT CATGCCCTG CTGCTGCTGT TACCACTCCA AAAGTCTGAT GACCTCGGTC
1201 CCCATGAACG GAACAAGCAT CCAGTGGGAG AACCACGATC AAAACAACCA CAACACAGAC
1261 CGGAGCAGCC ATAAGGACAG CATGAACTGA CCACCCTTAG AAGCACTCCT
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(2) INFORMATION FOR SEQ ID NO:2470:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1868 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2470:

```
1 GAATTCGGGA AAAAGTGAAG GTGTAAGAGC AGCACAAGTG CAATAAGAGA TATTTCTTCA
61 AATTTGCCCTC AAGATGGAAA CCTTTTGCCT CAGGGCATCC TTTTGGCTGG CACTGTTTGG
121 ATGTGTAATC AGTGATAATC CTGAGAGATA CAGCAGAAAT CTAAGCAATC ATGTGGATGA
181 TTTCACCACT TTTCGTGGCA CAGAGCTCAG CTTCCTGGTT ACCACTCATC AACCCACTAA
241 TTTGGTCTCA CCCAGCAATG GCTCAATGCA CAACTATTGC CCACAGCAGA CTAAATTTAC
301 TTCAGCTTTC AAATACATTA AACTGTGAT ATCTTGTACT ATTTTCATCG TGGGAATGGT
361 GGGGAATGCA ACTCTGCTCA GGATCATTTA CCAGAACAAA TGTATGAGGA ATGGCCCCAA
421 CGCGCTGATA GCCAGTCTTG CCCTTGGAGA CCTTATCTAT GTGGTCATTG ATCTCCCTAT
481 CAATGTATTT AAGCTGCTGG CTGGGCGCTG GCCTTTTGT CACAATGACT TTGGCGTATT
541 TCTTTGCAAG CTGTTCCCTT TTTTGCAGAA GTCCTGGGTG GGGATCACCG TCCTCAACCT
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601 CTGCGCTCTT AGTGTGACA GGTACAGAGC AGTTGCCTCC TGGAGTCGTG TTCAGGGAAT
661 TGGGATTCCCT TTGGTAACTG CCATTGAAAT TGTCTCCATC TGGATCCTGT CCTTTATCCT
721 GGCCATTCCCT GAAGCGATTG GCTTCGTCTAT GGTACCCTTT GAATATAGGG GTGAACAGCA
781 TAAAACCTGT ATGCTCAATG CCACATCAAA ATTCATGGAG TTCTACCAAG ATGTAAAGGA
841 CTGGTGGCTC TTCGGGTTCT ATTTCTGTAT GCCCTTGGTG TGCACGCGA TCTTCTACAC
901 CCTCATGACT TGTGAGATGT TGAACAGAAG GAATGGCAGC TTGAGAATTG CCCTCAGTGA
961 ACATCTTAAG CAGCGTCGAG AAGTGGCAAA AACAGTTTTC TGCTTGGTTG TAATTTTTCG
1021 TCTTTGCTGG TTCCCTCTTC ATTTAAGCCG TATATTGAAG AAAACTGTGT ATAACGAGAT
1081 GGACAAGAAC CGATGTGAAT TACTTAGTTT CTTACTGCTC ATGGATTACA TCGGTATTAA
1141 CTTGGCAACC ATGAATTCAT GTATAAACC CATAGCTCTG TATTTTGTGA GCAAGAAATT
1201 TAAAAATTGT TTCCAGTCAT GCCTCTGCTG CTGCTGTTAC CAGTCCAAAA GTCTGATGAC
1261 CTCGGTCCCC ATGAACGGAA CAAGCATCCA GTGGAAGAAC CACGATCAAA ACAACCACAA
1321 CACAGACCGG AGCAGCCATA AGGACAGCAT GAACTGACCA CCCTTAGAAG CACTCCTCGG
1381 TACTCCCATATA ATCTCTCGG AGAAAAAAT CACAAGGCAA CTGTGAGTCC GGGAAATCTCT
1441 TCTCTGATCC TTCTTCTCTTA ATTCACTCCC ACACCAAGA AGAAATGCTT TCCAAAACCG
1501 CAAGGGTAGA CTGTTTTATC CACCCACAAC ATCTACGAAT CGTACTTCTT TAATTGATCT
1561 AATTTACATA TTCTGCGTGT TGTATTGAGC ACTAAAAAAT GGTGGGAGCT GGGGGAGAAT
1621 GAAGACTGTT AAATGAAACC AGAAGGATAT TTACTACTTT TGCATGAAAA TAGAGCTTTC
1681 AAGTACATGG CTAGCTTTTA TGGCAGTTCT GGTGAATGTT CAATGGGAAC TGGTCACCAT
1741 GAAACTTTAG AGATTAACGA CAAGATTTTC TACTTTTTTT AAGTGATTTT TTTGTCCTTC
1801 AGCCAAACAC AATATGGGCT CAAGTCACIT TTATTTGAAA TGTCAATTGG TGCCAGTATC
1861 CCGAATTC

(2) INFORMATION FOR SEQ ID NO:2471:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2008 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2471:

TACCACTCCA	AAAGTCTGAT	GACCTCGGTC	CCCATGAACG	GAACAAGCAT	CCAGTGGAAAG	AACCACGATC
AAAACAACCA	CAACACAGAC	CGGAGCAGCC	ATAAGGACAG	CATGAACCTGA	CCACCCTTAG	AAGCACTCCT
GAATTCGGGA	AAAAGTGAAG	GTGTAAAAGC	AGCACAAGTG	CAATAAGAGA	TATTTCTCTA	AATTTGCCTC
AAGATGGAAG	CCCTTTGCCT	CAGGGCATCC	TTTTGGCTGG	CACCTGGTTG	ATGTGTAATC	AGTGATAATC
CTGAGAGATA	CAGCACAAAT	CTAAGCAATC	ATGTGGATGA	TTTCACCACT	TTTCGTGGCA	CAGAGCTCAG
CTTCCTGGTT	ACCACTCATC	AACCCACTAA	TTTGGTCCTA	CCCAGCAATG	GCTCAATGCA	CAACTATTGC
CCACAGCAGA	CTAAATTAC	TTCAGCTTTC	AAATACATTA	ACACTGTGAT	ATCTTGACT	ATTTTCATCG
TGGGAATGGT	GGGAATGCA	ACTCTGCTCA	GGATCATTTA	CCGGAACAAA	TGTATGAGGA	ATGGCCCCAA
CGCGCTGATA	GCCAGTCTTG	CCCTTGAGGA	CCTTATCTAT	GTGGTCATTG	ATCTCCCTAT	CAATGTATTT
AAGCTGCTGG	CTGGGCGCTG	GCCTTTTGAT	CACAACTACT	TTGGCGTATT	TCTTTGCAAG	CTGTTCCCTT
TTTTGCAGAA	GTCTCGGTG	GGGATCACCG	TCCTCAACCT	CTGCGCTCTT	AGTGTGACA	GGTACAGAGC
AGTTGCCTCC	TGGAGTCGTG	TTCAGGGAAT	TGGGATTCCT	TTGGTAACTG	CCATTGAAAT	TGTCTCCATC
TGGATCCTGT	CCTTTATCCT	GGCCATTCCT	GAAGCGATTG	GCTTCGTCAT	GGTACCCTTT	GAATATAGGG
GTGAACAGCA	TAAACCTGT	ATGCTCAATG	CCACATCAAA	ATTCATGGAG	TTCTACCAAG	ATGTAAAGGA
CTGGTGGCTC	TTCCGGTTCT	ATTTCTGTAT	GCCCTTGGTG	TGCACGCGA	TCTTCTACAC	CCTCATGACT
TGTGAGATGT	TGAACAGAAG	GAATGGCAGC	TTGAGAATTG	CCCTCAGTGA	ACATCTTAAG	CAGCGTCGAG
AAGTGGCAAA	AACAGTTTTT	TGCTTGGTTG	TAATTTTTCG	TCTTTGCTGG	TTCCCTCTTC	ATTTAAGCCG
TATATTGAAG	AAAACCTGTG	ATAACGAGAT	GGACAAGAAC	CGATGTGAAT	TACTAGTTT	CTTACTGCTC
ATGGATTACA	TCGGTATTAA	CTTGGCAACC	ATGAATTCAT	GTATAAACC	CATAGCTCTG	TATTTTGTGA
GCAAGAAATT	TAAAAATTGT	TTCCAGTCAT	GCCTCTGCTG	CTGCTGTTAC	CAGTCCAAAA	GTCTGATGAC
CTCGGTCCCC	ATGAACGGAA	CAAGCATCCA	GTGGAAGAAC	CACGATCAAA	ACAACCACAA	CACAGACCGG
AGCAGCCATA	AGGACAGCAT	GAACTGACCA	CCCTTAGAAG	CACCTCCTCG	TACTCCCAT	ATCCTCTCGG
AGAAAAAAT	CACAAGGCAA	CTGTGAGTCC	GGGAATCTCT	TCTCTGATCC	TTCTTCTT	ATTCACCTCC
ACACCAAGA	AGAAATGCTT	TCCAAACCG	CAAGGGTAGA	CTGGTTTATC	CACCCACAAC	ATCTACGAAT
CGTACTTCTT	TAATTGATCT	AATTTACATA	TTCTGCGTGT	TGTATTGAGC	ACTAAAAAAT	GGTGGGAGCT
GGGGGAGAAT	GAAGACTGTT	AAATGAAACC	AGAAGGATAT	TTACTACTTT	TGCATGAAAA	TAGAGCTTTC
AAGTACATGG	CTAGCTTTTA	TGGCAGTTCT	GGTGAATGTT	CAATGGGAAC	TGGTCACCAT	GAAACTTTAG
AGATTAACGA	CAAGATTTTC	TACTTTTTTT	AAGTGATTTT	TTTGTCTTTC	AGCCAAACAC	AATATGGGCT
CAAGTCACCT	TTATTTGAAA	TGTCATTGG	TGCCAGTATC	CCGAATTC		

(2) INFORMATION FOR SEQ ID NO:2472:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 362 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2472:
 1 GCTCAGCCTC CAAAGGAGCC AGCCTCTCCC CAGTTCCTGA AATCCTGAGT GTTGCTGCC
 61 AGTCGCCATG AGAACTTCCT ACCTTCTGCT GTTACTCTC TGCTACTTTT TGTCTGAGAT
 121 GGCTCAGGT GGTAACTTTC TCACAGGCCT TGGCCACAGA TCTGATCATT ACAATTGCGT
 181 CAGCAGTGGA GGGCAATGTC TCTATTCTGC CTGCCCGATC TTTACCAAAA TTCAAGGCAC
 241 CTGTTACAGA GGAAGGCCA AGTGCTGCAA GTGAGCTGGG AGTGACCAGA AGAAATGACG
 301 CAGAAGTGAA ATGAACCTTT TATAAGCATT CTTTAAATAA AGGAAAATTG CTTTGAAGT
 361 AT

(2) INFORMATION FOR SEQ ID NO:2473

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4655 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2473:

4081 AGTCTTTTGC CCTAGAAGGT ATAAACAAAT TGGCACCTGT GGTCTCCCTG GAACAAAATG
 4141 TCGCAAAAAG CCATGAGGAG GCCAAGAAGC TGCTGTGGCT GATGCGGATT CAGAAAGGGC
 4201 CTCCTCATCA GAGACGTGCG ACATGTAAAC CAAATTAAC TATGGTGTCC AAAGATACGC
 4261 AATCTTTATC CTAGTAATTG TGGTCATTGG GTGATGTTGG TTTGGGCAGG CCATCTCTAA
 4321 TATCCTTGAA ACACCTTTT CTGCTCTCCA GGAAGGGGTC AGGGCTGCCA CAGCGGGGCT
 4381 TGGAGTGCTT TCCAGGGTCA CAGGCATCTG TATTCTTTGG ATTCCTTGAC CTTCCCCATT
 4441 TATTCCCGGC ATTTTCTTAA AACGTGTGCT TTGCTCCTCC TGCATCCTCC CTTGTCATGC
 4501 CCTCACCTAC CCCACATCTT CCCTAAAAAA AGCAAGCCCA ACTCAAAGAC CAGTTCCTCT
 4561 ATGGAATCAT AGTGGATCTG CCAAGGGAGG GGATGCCAG TCCTCTGTTC TTCACAAGAC
 4621 TCCTTCTTC TGGCTAAGGT TTCTTATGCA ATTAT

(2) INFORMATION FOR SEQ ID NO:2474:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2030 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2474:

1 CTGCAGTGGT AAAAAGATTC TATATCTGCT GTTGTATGAA TGCAGCACCC ACTAGCCACA
 61 TAGTGCTCGT GAGCACTTGC AATGCGGCTA GGGTGATTTC AATTAACCTA AAAGAGAACA
 121 GCCACAGGGA GCATGTGGCT GCCATATTTG ATGGTGCTGC TTTGAGAACA AAATGAGAGA
 181 AATGAAGCCT CTATTTACCT TGGTTGGCGG AACACATTGA AGGGACTCTG TATTGATACC
 241 AGGCTTCAAA CTTTGGGAAG TGTACTGGCC AACTTAAACA CATCCACAGG AGAATGAAGA
 301 GGTTTGGGAA GGGACCAGAA ACCAGGCATT GAGGACAATG AGAAGAGTTT TTCAAAAGTG
 361 GAATTACTGC AAAAAGTGGA AAAATAGCCT TTGGATGGAA GTTACTGATG AGACAATTTT
 421 CATCGGTGTG AAAGCCATCT TTCCAACAGA GATCTGCAAC ATGAGAATGT ACTGTCTCCT
 481 AGGGTAGCGA TGGCCTCTTG TATTAGTCCG CTCAGGCTAC CAGATTTATC GTTTAAACTG
 541 CCCATAAACA GACCAGGCAG TTTAAACAAC AGAAATTTAT TTCCTCGCAG TCCTGGAGGC
 601 AGGAAGTCTG CGATCAAGGT GGAAGCAGGG TTGGCTTCTT CTCAGGTGTC TGTCTTGGC
 661 TGGTAGATGA CCGCCGCTC CTGGGTCCT CACATGGTCT TTCCTCTGTG TGTGTCTGTC
 721 CCAATCTCTT CTTATAAGGA TGCAAGTCTT ATGGATCAGA GCACACCCCA ATGACCGTGT
 781 TTAACCTGAA TCACCTCTTT AAAGTTTCTC TCCTCAAATA CAATCACCTC CTGAGGCAC
 841 GTTAGGGCTT CGACACAGGA ATTCTTTTCC TAGGGGATTC AGTTCAGTCC AAAACGCCTA
 901 CCAGTGGAGA CTTGCAACAT GCGGCGCTGC TGGTCCCTCG CCAGGAATAT CACAGGCGAC
 961 TGTTCCTGTG TTGCATGGAAT AGAAGGCTAT TCCAGAGTAT TGTCTCTATT TATCAGATCT
 1021 GGGATACTGG GAGAAGGGCA AAATAAAGTC CAAGTAGAAA AAAAACTAT GAAAGTTTTA
 1081 GAGAGTAACC ATAATTTTCT CCGATGTGA AACGATCCTA GATTTCAGCT GAAATAGTGA
 1141 TGTGGGAAGT GAGGGGGCCG GGATTCAAGG CAGAGGGAAC AGCGTAACTG AAGGCATGGA
 1201 AGGAGGGAAG TGTAGGCTGT GTTGAAGAG TGGCAGCTGC TTCCACATTT CTAAAACACA
 1261 GGATGTGATT TTGGGGTGTG TTGAGACAAG GCAGAAAAC TGTTTGAAA AATAACTTGA
 1321 ATTCCCTGCA CATTTAAAT CTCTCAGCAG AAGAAAACCC CACTCAGAAC CCCACTGTTT
 1381 ATTCTTGGC TTGTATTGG SCACAGCTGG CATAGCCCA GACTGAGTAA GCTCTTCAGA
 1441 CACCTCATTT CATGAGTAGC CCCAAGATC AATCATGGGC CAATTTCTTG GAAGAGAAGA

1501 CTCTCCGGTG TTTTGCAGTT ATTTGTTCTG CTTTCGCGAG ATGTTCTCAA ATCGTTGCAG
 1561 CTACAAGCCA TGAGTCTGAA GTGTTTGTGT TCCCTCCTTA CAGGTGGTAA CTTTCTCACA
 1621 GGCCTTGGCC ACAGATCTGA TCATTACAAT TGCCTCAGCA GTGGAGGGCA ATGTCTCTAT
 1681 TCTGCCTGCC CGATCTTTAC CAAAATTCAA GGCACCTGTT ACAGAGGGAA GGCCAAGTGC
 1741 TGCAAGTGAG CTGAGAGTGA CCAGAAGAAA TGACGCAGAA GTGAAATGAA CTTTATTATA
 1801 GCATTCTTTT AATAAAGGAA AATTGCTTTT GAAGTATACC TCCTTTGGGC CAAAATGAAT
 1861 CTTGTGTCTC AATTGGAAGA GGTAAAGAAG TAGGGGGTTA GGGTGCATGG GTTGGAACGT
 1921 GAGACAGGTC GAACCACAAA GCCTGCCTGG AAAAGGGGAG TGACGTCCTA GGCTTCAGTG
 1981 ATGTCACCTC CACTTTGTTT GATCCACAAA CCAACAGGTG ACTGATTTTG

(2) INFORMATION FOR SEQ ID NO:2475:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 322 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2475:

1 GTCAGCTCAG CCTCCAAAGG AGCCAGCCTC TCCCCAGTTC CTGAAATCCT GAGTGTTCGC
 61 TGCCAGTCGC CATGAGAACT TCCTACCTTC TGCTGTTTAC TCTCTGCTTA CTTTGTCTCG
 121 AGATGGCCTC AGGTGGTAAC TTTCTCACAG GCCTTGGCCA CAGATCTGAT CATTACAATT
 181 GCGTCAGCAG TGGAGGGCAA TGTCTCTATT CTGCTGCCC GATCTTTACC AAAATTCAAG
 241 GCACCTGTTA CAGAGGGAAG GCCAAGTGCT GCAAGTGAGC TGGGAGTGAC CAGAAGAAAT
 301 GACGCAGAAG TGAAATGAAC TT

(2) INFORMATION FOR SEQ ID NO:2476:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4799 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2476:

1 GAATTCACAT TTCTCACCTT TTGATGTATT AAGAAAGTAT GGAGAAATAT ATCCTCTATC
 61 AAATTTTCAT GCCTTCAATA ATTTCTAATT CATCAGTCAG TGTTTTTCCA TCCTTTACTG
 121 TGATGATGCC CTTTCTTCCA AACTTTTTCA TTGCATCAGA GATGATGTTA CCAATTTCTT
 181 TGCTCCATT TGCAAGAAAT GTAGCAACCT GTGCAATTTT TTCAGGTTTG GTCACAGGTT
 241 TAGACTGCTT TTTAAGTTCA GCAATTACAG CATCAACAGC TAACATCACA CCTCTCTTGA
 301 TTTCCACTGG ATTAGCACCT TTGCTAACCT TCTGGAAGGC TTATTTGGA ATAGAGCATA
 361 CCAGTACAGC AGCAGTGATA GTGCCATCCC CCAGTCTCTC CATTTGTGTT ATTGGCAACA
 421 TCTTGACAA GTTAGCTCC AATGCTTTTA TATTATCCT TTAAGTCAAT TGACTTTGCA
 481 TCAGTCACAC CATCTTTTGT TACTTTGGGA CTCCCCAGC TATGTTCAAT AATTACTGTT
 541 CTTCCCTTTG GCCCCATTGT AATGGCTACA GCATCGCAA AAAGTCTACA CTTTGAAGCA
 601 TTAAGGCTCA GACATCAGCA CCAAATTTTA CATCTTTACC ATCACTTCAA GTGAGGTGAG
 661 GAGCCAGTAG CCTGGACACT GGTCTCATCT GGTGAAAGAC TGTGGGTAAT GGAAGCATTT
 721 CTGTGGGGTG GTGGCAGGAC ATGTGCATGG TGAGGCAGGT CATCAGCAGC AAGTGAGAGC
 781 TGCTCTTAC TTTCTAAAGG TGACATAGCA AGTATACAAA AAAAAATAAA ATATTAATTT
 841 AGGCAGAGCA CATAAAGGCT TTATTTTATA TTCCATTTCT CTGTATGCTT TCTTCACCAG
 901 GAAGAAATAG TTTTAGTGTC AGGAATGAAT GAGTCTGCCC CTCAATTCCA GCCTGCTCAG
 961 CACACAAGGA AACAAAGCCC TGACAATCAG AGTGACTCCC TGGTGACTAA GCTCCAGTCC
 1021 TGATGACATA TTTGTTTAGC AGTTCTGACA GCATCTGACC CAGCCCTCTC TTTGCATACC
 1081 CCACCAGAAC CTCTTTTTTT TTTTTTTTTT TTTGAGACTG AGTCTTGCTC TGTGGAAGC
 1141 GATTCCTGTC CCTCAGCCTC CCAAATACCT GGAATTATAG GCGTAAGCCA TCATGCCTGG
 1201 CTAATTTTTG TATTTTTTCT GGAGATGGGG TTTTGCCATG TTGGTCAAAT TGGTCTCACA
 1261 CTCCTGACCT CATGTGATCC ACCTGCCTCA GCCTCCCAA GTGCTGGGAT GACAGGTGTA
 1321 AGCCACCATG CTAGGCTCAG AAATTTCCCT TTATAAAAAA GTCATTAAGG ATCTTGGCTG
 1381 CACAATATCG TTACCAGCTT CCTTTAAATC CACCTCTGGC CTGCCAGGAA TCAGGGTTCT
 1441 TCAGAACCTG ACATTTTAAA TGAAGAGGTC AGGCAGGTCA TGAGGAAAGC CTCATTGTCC
 1501 CCATGTCTCT CTCACTGCTG CACCCCTGAG ACATCACAGA CATGGACACT GGGGCTTGCT
 1561 TGTTTCTCAA ACTGCCCTTA GATCGAAAGA GGGAGGAACC AGGATGAATG CCACTCATTT
 1621 TCCCAAGAAA GGCCCTCTCC TGAGTGCCCG GGATGGGGCT CTGTCCATTG CCTGGGGCCG
 1681 CCAATTGCTA CTCTGGGTTA CGGAAGAAGG ACAGGGTCTT GAGAGACACC AGAGACCTCA
 1741 CACAGCCCTG AAAACATGGG GCTCCTTCAT AAGTGTTCCT CATCAACAAC AGGGAGACCA
 1801 CGTGGAGGCC TTGCAGCCCT ACTCGGTGCT TCTCCACCAA ATCCCAAGGG CAGTGACGCT
 1861 GACGTCTGTG GAAAGCAGAG AAAGCCCTGG CTCCCAAAGC CCTGAAGTCC TGTGGAGCTG

1921 ACATTCCTG AGTGACGGTG TGAATGGAAG GAACTCAAGT GCGGGTGGTA GGCCACCTCC
1981 TGGCCCAGGC CTGGGTGAAC TCTGAGGGGA CACATGTAGT CACAATCCCA TCCTCCCATT
2041 CTCCTTCTCA GAGGAAGGAA GTGGGCATCC ATCTGCCTCA TCTCTCTCCC GTGGGGAAGA
2101 TGGGGAGTTT CAGGGGAAGT TTCACATAAA TTTCACCAGC TCAGATCTCC TGTGAGGATG
2161 GGGCCACCA TGCTCCCGT GCTGCCAGAG GCCCTGAGCC CCTCCAGGGT CCCTGGGTTT
2221 GAGCCAGCCC TGTATCATCC CCAGGAGCTG AATGTCCGAA CAATGGATAG AATTAGATGG
2281 AAAGAGCTCT CAATTTGGCC TGAGACTGTC CCCAGATACT CAGGAAAAAC AGGACGTCGC
2341 ACAGAGTGGG CAGCAGGTGA GTGGCAGGTT ATAGGTCTTG AGTTTGAGTT TGTCTCAGC
2401 TGAGACAGAC CCAGCCCCTC ACTCCATTCA CACACTGGGT TTTAAATGGT GCAAGATAGG
2461 AGGAATTTTC TGGTCCCAAG AGCAGGAGGA AGGGATTTC TGGGGTTTCC TGAGTCCAGA
2521 TTTGCATAAG ATCTCCTGAG TGTGCATTGT TCTTTGAGGA CCATTCTCTG ACTCACCAGG
2581 TAAGTGGCTG AATTCTAACC TCTGTAATGA GCATTGCACC CAATACCACT TCTGAACCTC
2641 ACCTGGTGAC CAGGAGCCAG GACCTTTATA AGGTGGAAGG CTTGATGTCC TCCCCAGACT
2701 CAGCTCCTGG TGAAGCTCCC AGCCATCAGC CATGAGGGTC TTGTATCTCC TCTTCTCGTT
2761 CCTCTTCATA TTCTGTATGC CTCTCCAGG TGAGATGGGC CAGGGAAATA GGAGGGTTGG
2821 CCAAATGGAA GAATGGCGTA GAAGTCTCTC GTCTCCTCTC ATTCCCCCTC ACCTATCTCT
2881 CCTCATCCC TCTCTCTCTC TCCTCTCTCT GTGTGTCCCC TCCATCCTTT TCTCTGCTT
2941 CTCCTCTCTC TTCCCTCTCT CTCTTTTTTT CTGTCTTTCT TTTCTCTCTC TCCCTAGAGC
3001 ATGTCTTTCT TTCTTTCTCT TTCTTTCTCT CTACCCACAC TTTTAGACTG AGTAGACTGA
3061 ATGCCCTATT TAATGAACCC AAGCATTGCT TCCTTCAATA GAAAAGGAGT TTGAGAACCC
3121 AATGGACAAC TCACTCGTTC TTCTAAGCCA ATATGAAGGA GCCCAGTAGT TTGTAAATAT
3181 CATCTCTTCA TGCTTTTCCA TGCTACAAC TCTGAGACTA TGGTTGAAAC CTGTAGGTG
3241 ACTTTTAAAT TAAAAGGCAG AAATTTTGAT TTTATCTAAA GAAAGTAGTA TAGAATGTCA
3301 TTTTCTAAAT TTTTATATTT AAAGAGTAGA TACTGCAACC TAGAGAATTC CAGATAATCT
3361 TAAGGCCCAG CCTATACTGT GAGAACTACT GCAGCAGACA CTCTGCCCCC AGGACTTTTC
3421 TGATCAGAGG CCTGAGAAC AGTCCCTGCC ACTAGGCCAC TGCAGGTTCA CAGGACAGGG
3481 ACAGCCCAT TGAACCAACT TTTAAACCTG GATGCCTAAC CTTCAATTTT TCCTTGATAT
3541 TATGAAATA AAATAAAAC CATGAAAGGA TAAAAGAGG AGAGTGGAA GGAAGGATGG
3601 AGAAGGGGAA AAAGAAAAT TGAGAGTAAA TCCTAAAACA ATTAATCTAA TAGATATCAT
3661 CTGTGAAAT CCTCATTTTA CCAATCTTAT TTAGAGTCC TGGGTTTTGT GAGAACAATG
3721 GGGTCTGAG AGGCACCAGA GACCTCATAT TTTCCAAAAC CTAGAACAGT ATAATGAAGG
3781 AAGGAGGGAA GAGGGGAGG AGGGAGGGAA GAGGGGAGG AGGGAGGGAG GGAGGGAAAC
3841 AAAAGAAGA ATGAGGTTGA AACCAGGACT TAGATATTAG AAACAAGCCA TTACAAAAT
3901 TATTCTATG GTTAATTGTG GTTTTCAACT GTAAGTTACT TGGTGTTAAT TTCTATTAA
3961 ACAATTTTCA TAAGTTGCAT CTTTTTATC CCATCTCAGA TCAAATACTT AACAGACTAA
4021 ATGATTTGAA AAAGCAAAAG TTTACTGGCT TGTGTGTGTT AAAATGGAGG TATGGTGGCT
4081 TTGATATTAT CTTCTTGTGG TGGAGCTGAA TTCACAAGAG ATCGTTGCTG AGCTCCTGCC
4141 AGACCCACC TGGAGGCCCC AGTCACTCAG GAGAGATCAG GGTCTTTCAC AATCAGGTTT
4201 TACAAAAATA AACATCCCC AAACCACAGC AGTGCCAGTT TCCATGTGAG AAACCTTAGAT
4261 CCAAATGACT GACTCGCGTC TCATTATCAT GATGGAAGG CCCAGGCTTG AGAAAGAAGC
4321 CCGCTGCGGA TTTACTCAAG GCGATACTGA CACAGGGTTT GTGTTTTTCC AACATGAGTT
4381 TTGAGTTCTT ACACGCTGTT TGCTCTTTT GTGTGTTTTT TCCCTGTAG GTGTTTTTGG
4441 TGGTATAGGC GATCCTGTGA CTGCTCTTAA GAGTGGAGCC ATATGTCATC CAGTCTTTTG
4501 CCCTAGAAGG TATAAACAAA TTGGCACCTG TGGTCTCCCT GGAACAAAAT GCTGCAAAAA
4561 GCCATGAGGA GGCCAAGAAG CTGCTGTGGC TGATGCGGAT TCAGAAAGGG CTCCCTCATC
4621 AGAGACGTGC GACATGTAAA CCAAATTAAT CTATGGTGTC CAAAGATACG CAATCTTTAT
4681 CCTAGTAATT GTGGTCATTG GGTGATGTTG GTTTGGGCAG GCCATCTCTA ATATCTTTGA
4741 AACACCTTTT TCTGCTCTCC AGGAAGGGGT CAGGGCTGCC ACAGCGGGGC TTGGAGTGC

(2) INFORMATION FOR SEQ ID NO:2477:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3710 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2477:

1 GAATTCCCTG TAAGCCCTGT TACAGGGGCT GCACCCAGG TACAACCTGA CCTGTGTCCA
61 AGGCGGGCAA CTCACCCCTT AGATATTGAA TGGGTCCCAT GGCACCAATG CTAAACACC
121 AGCAGCCCTC ACAACCACAG ATCGTGTGTT AAGGATGAGG AGGTAGTTCT CTGGATGCAC
181 AGGCTTCAAT CCAAATGGGC TCATGACGCC GCAGCACACA CCCAGTCTGC AGCCTGAAGA
241 GTTGAGGCAT TGCAATTCACA GAAAGCATCC AGACATGATC ATGGGCTCAG GGATACACCT
301 GTTCTCCGAT GTGTACCAGT GAAGGATGGA AACTCTATG CCTCCAGAA AGCACCACCT

361 AAGCTTTTGC TGAATGCTTC TCTGAAGGCC CACAAGGCTG AGAGGCTGTG CAACACCAGC
421 AGTAAAGTGA ATGCCAGAC TCCACCTCC TTTCTTGGGT GGCCATCTGG AAAGGCCACT
481 CCCACCCTGA TGGCTAATGC CTCAGACCAG TTCTTGGCCC AGATGATCCT AGACAATTGT
541 TTAAGCTTAA ACTGTTTATT GGCCAAGCAA ACAGGTGATA GTACCTCTGG GGAACCACAT
601 GCCGCGTGTA CATCCAGATC TCAGGAGAAC CCAAAAATGT CTGTCCACA TAGCAACAGA
661 AGCCCAGGTA GCACTCAGTC TCACCTGGGT GTTCTCCAAC ATCCCAGCTC AGCCAAATGG
721 CTTTCATTAG TTTTATGGT TAGACCCAG GTCCTCGGGA CACTGCTTTA GAAACACATT
781 CCAAATCCTC CTCTGTGTGC AGGTGGCATT CCTATCCCAA TCTCTTTGCA GGGCGTATAC
841 TGTGATACGC AGCCAGGCTG TCCAGAGGC CTAAATATAT CCCTTGGTGC AGGTAGTTCA
901 GCTTAGCCAC AGCCAATGCA TCACAGGGTC AACTGTGTTA GGAGCCATTG AGAATCCATA
961 GTTGCTTGCT GCCTGGGCTT GGCCAGGGCT GACCAAGGTA GATGAGAGGT TCCTCTGTGG
1021 AGTTCCTACTT TAACCTCACC TTCCACCAA ATTTCTCAAC TGTCCTTGCC ACCACAATTA
1081 TTTAATGGAC CCAACAGAAA GTAACCCCGG AATTAGGAC ACCTCATCCC AAAAGACCTT
1141 TAAATAGGGG AAGTCCACTT GTGCACGGCT GCTCCTTGCT ATAGAAGACC TGGGACAGAG
1201 GACTGCTGTC TGCCCTCTCT GGTCAACCCTG CCTAGCTAGA GGATCTGTAA GTACTACAAA
1261 ACTTAACTT TACACTGAGT TTTTCATCAT GAAGCTATGC CTCCAATCTG ACCTCTGACT
1321 GTGGGGCCGC CCCAGAGGGA CCCAGCGGGT GAATCCCTGC TAGGAACGTC TGTCCGGACC
1381 TCTGGTGA CTGTTGGGACG ATGGCTTCCA GCTAACTTAA TAGAGAACT CAAGCAGTTT
1441 CCTTCTAAAT ACACATGTCA CATGTCCTGG TTGACATGTC CAGTAAGAAG ACTATCACAG
1501 GTCTTTGGAA CATTCCTTTG AGAGAAACCT ATTTAGGTCC TTGGTCTGTT TTTCAATCAG
1561 GTTGTGTTGAT TTTTGCTATT GAGTTGTTGG AATTCCTTAT GTATTGATAT ATTTGCCCCT
1621 TCTGCCATGT AGGTTTTGCA AATATTTTCT CTCATTTTCT GGGTTATCTT TTCCTCGGT
1681 TGATTGTTTC CTTTGCTGTG CAGATGCTTT AGCGTTAAAT GAAGCCACAC TTGTCTATTT
1741 TCCTTTTAT TGCTGTGCTC TTTGGTGTCA TAGCCAAGAA ATCATTACCT ACATCAATGT
1801 CAAAAGCTTT ATCCTTCTAT AACTTCTAG TAGTTTATGG TTTCAGTTGT TACATTTAGG
1861 TTTTCAATTC ATTCTGAGTT GATGTTCCCTA CATGGTGTGA GATAAAGATT TAAATACATA
1921 CATATATAAA ATCATGAGGT AGTGACACT ATAAATATAC AATTGTTAAT TGTACTCAA
1981 GTCTAAGTAG AGGTGGAAAT AATAAACTTT CTTTTTTT CTTAAACCAC TCTGTGTCAC
2041 TGAGCTGATT TCACCTTTAG CCGATAAAA TCATTGTCCT CTCACCCCTG ATTCCTACAG
2101 GAGACTACTC ACCCCATAAC CTCAAAAACC TCTTCATGAG GATGGTAAGT CACCTGAATC
2161 CTGAAGTGAA TTACTCGCTA TTCCATTGGA ACTCATATAG GACACCAGAA TCTAGACCTC
2221 CAGAGAACAG CAGGACCCAT CTTCAAGAAA TAAGAAGCAT TTGTTCCCTG AGCCTGTTGA
2281 ATCAAAGTGC AATTTCTATT CTTTTTGGA TGTTAAAAAG TGAATCATAA TATTTAAGCA
2341 GGTGAACCCA CGAGTAACAT AGCAGGGTCT TTCTTGTCTAT TATTAGCTCC AACCTAGCAC
2401 AGACATTAAA GGTACAGATG TATACTAGCA TGAACTGGG AGAACAGGAG CATTGAGCA
2461 ACCTTGAGAC CAATGGGCTC CTCTATATAA ATGCACACCT CCTCTCACTG AGATTGAGGA
2521 AGGTTTCTTG TCTCCGAGCC TTCTCCAGT AGAGCTATAA ATCCAGGCTG GCTCCTCCCT
2581 CCCACACAG CTGCTCCTGC TCTCCCTCCT CCAGGTGACC CCAGCCATGA GGACCCTCGC
2641 CATCCTTGCT GCCATTCTCC TGGTGGCCCT GCAGGCCAG GCTGAGCCAC TCCAGGCAAG
2701 AGCTGATGAG GTTGCTGCAG CCCCGAGCA GATTGCAGCG GACATCCAG AAGTGGTTGT
2761 TTCCCTTGCA TGGGACGAAA GCTTGGCTCC AAAGCATCCA GGTGAGAGAG GCAGGCATGC
2821 AGAGCTGCTA AGTCTAGAGG GAAGGACGGG AGAGAGGTT CAGAGTTGGG TCTCAGCAGT
2881 CTATGTCACT GAGGTGGCTT CACTTAGAAT CTCTGGGCAT TGATTTTCTC ATCTAGAAAT
2941 TGAACAGAGA GCCAAATAAA CCTGAGAAAC TTTATTTCTC CAAAGACTTG ATTCAGAGAA
3001 ACATCTGTGA AATTCATAA GTTTAAGATA TGAAGAGACA GACTAGTTAT TTCTGGATCT
3061 AAACAAGTAG ACTTAGTTGT AAAGAGAACA TTTTACTCTA TCTACAGAAG AGCTTTTAAA
3121 AACTGCAGCC AAGCCTGAGG GTAAGTTCAG GTGTGTGTGT GATGGGGCAG GAATGCAAAA
3181 ATGAGAGCAA AGGAGAATGA GTCTCAAATT CTGTGTGACA AGCACTGCTC TGCGTGTTTA
3241 TTCCTATCGA CTGAGGTTGT TCGTGCTACC GGCTGCAATG CAGCCAGCAT CACCTGTCAG
3301 CTAGCATGTG ACTTCCCGA GATTCTTTT CTTACCCACT GCTAACTCCA TACTCAATTT
3361 CTCATGCTCT CCCTGTCCCA GGCTCAAGGA AAAACATGGA CTGCTATTGC AGAATACCAG
3421 CGTGCAATTGC AGGAGAACGT CGCTATGGAA CCTGCATCTA CCAGGGAAGA CTCTGGGCAT
3481 TCTGCTGCTG AGCTTGACAGA AAAAGAAAAA TGAGCTCAAA ATTTGCTTG AGAGCTACAG
3541 GGAATTGCTA TTAATCTGT ACCTTCTGCT CAATTTCTCT TCCTCATCTC AAATAAATGC
3601 CTGTGTACAA GATTTCTGTG TTCCACCTC TTAATGTGT GATATGTGTC TGTGTCAAGA
3661 CACTTGGGAT ACACGTACCA AAACGCAAAA TCAATTTTT GAACAATATA

(2) INFORMATION FOR SEQ ID NO:2478:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 464 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2478:
 1 CCTACCTTGC TATAGAAGAC CTGGGACAGA GGACTGCTGT CTGCCCTCTC TGGTCACCCCT
 61 GCCTAGCTAG AGGATCTGTG ACCCCAGCCA TGAGGACCCT CGCCATCCTT GCTGCCATTTC
 121 TCCTGGTGCG CCTGCAGGCC CAGGCTGAGC CACTCCAGGC AAGAGCTGAT GAGGTTGCTG
 181 CAGCCCCGGA GCAGATTGCA GCGGACATCC CAGAAGTGGT TGTTCCTT CCATGGGACG
 241 AAAGCTTGGC TCCAAAGCAT CCAGGCTCAA GGAAAAACAT GGAAGTCTAT TGCAGAATAC
 301 CAGCGTGCA TGCAGGAGAA CGTCGCTATG GAACCTGCAT CTACCAGGGA AGACTCTGGG
 361 CATCTCTGTG CTGAGCTTGC AGAAAAAGAA AAATGAGCTC AAAATTTGCT TTGAGAGCTA
 421 CAGGGAATTG CTATTACTCC TGTACCTTCT GCTCAATTTC CTTT

(2) INFORMATION FOR SEQ ID NO:2479:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3834 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2479:

1 CCTGAGACAG AGGCAGCAGT GATACCCACC TGAGAGATCC TGTGTTTGAA CAACTGCTTC
 61 CCAAAACGGA AAGTATTTCA AGCCTAAACC TTTGGGTGAA AAGAAGTCTT GAAGTCATGA
 121 TTGCTTCACA GTTCTCTCA GCTCTCACTT TGGTGCTTCT CATTAAAGAG AGTGGAGCCT
 181 GGCTTTACAA CACCTCCACG GAAGCTATGA CTTATGATGA GGCCAGTGCT TATTGTCAGC
 241 AAAGGTACAC ACACCTGGTT GCAATTCAAA ACAAAGAAGA GATTGAGTAC CTAAACTCCA
 301 TATTGAGCTA TTACCAAGT TATTACTGGA TTGGAATCAG AAAAGTCAAC AATGTGTGGG
 361 TCTGGGTAGG AACCCAGAAA CCTCTGACAG AAGAAGCCAA GAACTGGGCT CCAGGTGAAC
 421 CCAACAATAG GCAAAAAGAT GAGGACTGCG TGGAGATCTA CATCAAGAGA GAAAAAGATG
 481 TGGGCATGTG GAATGATGAG AGGTGCAGCA AGAAGAAGCT TGCCCTATGC TACACAGCTG
 541 CCTGTACCAA TACATCCTGC AGTGGCCACG GTGAATGTGT AGAGACCATC AATAATTACA
 601 CTTGCAAGTG TGACCCTGGC TTCAGTGGAC TCAAGTGTGA GCAAATTGTG AACTGTACAG
 661 CCCTGGAATC CCCTGAGCAT GGAAGCCTGG TTTGCAGTCA CCCACTGGGA AACTTCAGCT
 721 ACATTTCTTC CTGCTCTATC AGCTGTGATA GGGTTTACCT GCCAAGCAGC ATGGAGACCA
 781 TGCAAGTGTG GTCTCTGGA GAATGGAGTG CTCCTATTCC AGCCTGCAAT GTGGTTGAGT
 841 GTGATGCTGT GACAAATCCA GCCAATGGGT TCGTGGAATG TTTCCAAAAC CCTGGAAGCT
 901 TCCCATGGAA CACAACCTGT ACATTTGACT GTGAAGAAGG ATTTGAACTA ATGGGAGCCC
 961 AGAGCCTTCA GTGTACCTCA TCTGGGAATT GGGACAACGA GAAGCCAACG TGTAAAGCTG
 1021 TGACATGCAG GGCCGTCCGC CAGCCTCAGA ATGGCTCTGT GAGGTGCAGC CATTCCTCTG
 1081 CTGGAGAGTT CACCTTCAAA TCATCCTGCA ACTTCACCTG TGAGGAAGGC TTCATGTTGC
 1141 AGGGACCAGC CCAGGTTGAA TGCACCACTC AAGGGCAGTG GACACAGCAA ATCCCAGTTT
 1201 TGGAAGCTTT CCAGTGCACA GCCTGTCCA ACCCCGAGCG AGGCTACATG AATTGTCTTC
 1261 CTAGTGCTTC TGGCAGTTTC CGTTATGGGT CCAGCTGTGA GTTCTCCTGT GAGCAGGGTT
 1321 TTGTGTTGAA GGGATCCAAA AGGCTCCAAT GTGGCCCCAC AGGGGAGTGG GACAACGAGA
 1381 AGCCACATG TGAAGCTGTG AGATGCGATG CTGTCCACCA GCCCCGAAG GGTTTGGTGA
 1441 GGTGTGCTCA TTCCCTATT GGAGAATTCA CCTACAAGTC CTCTGTGCTC TTCAGTGTG
 1501 AGGAGGGATT TGAATTATAT GGATCAACTC AACTTGAGTG CACATCTCAG GGACAATGGA
 1561 CAGAAGAGGT TCCTTCTGTC CAAGTGGTAA AATGTTCAAG CCTGGCAGTT CCGGGAAAGA
 1621 TCAACATGAG CTGCAAGTGG GAGCCCGTGT TTGGCACTGT GTGCAAGTTC GCCTGTCTCT
 1681 AAGGATGGAG GCTCAATGGC TCTGCAGCTC GGACATGTGG AGCCACAGGA CACTGGTCTG
 1741 GCCTGCTACC TACCTGTGAA GCTCCCACTG AGTCCAACAT TCCCTTGTA GCTGGACTTT
 1801 CTGCTGCTGG ACTCTCCCTC CTGACATTAG CACCATTCTT CCTCTGGCTT CGGAAATGCT
 1861 TACGGAAAGC AAAGAAATTT GTTCTTGCCA GCAGCTGCCA AAGCCTTGAA TCAGACGGAA
 1921 GCTACCAAAA GCCTTCTTAC ATCTTTTAAG TTCAAAAGAA TCAGAAACAG GTGCATCTGG
 1981 GGAAGTAGAG GGATACACTG AAGTTAACAG AGACAGATAA CTCTCCTCGG GTCTCTGGCC
 2041 CTTCCTTGCT ACTATGCCAG ATGCCTTTAT GGCTGAAACC GCAACACCCA TCACCCTTC
 2101 AATAGATCAA AGTCCAGCAG GCAAGGACGG CCTTCACTG AAAAGACTCA GTGTTCCCTT
 2161 TCCTACTCTC AGGATCAAGA AAGTGTGGC TAATGAAGGG AAAGGATATT TTCTTCCAAG
 2221 CAAAGGTGAA GAGACCAAGA CTCTGAAATC TCAGAATTCC TTTTCTAACT CTCCTTGTCT
 2281 CGCTGTAAAA TCTTGGCACA GAAACACAAT ATTTTGTGGC TTTCTTTCTT TTGCCCTTCA
 2341 CAGTGTTCG ACAGCTGATT ACACAGTTGC TGTCAATAAGA ATGAATAATA ATTATCCAGA
 2401 GTTTAGAGGA AAAAAATGAC TAAAAATATT ATAACCTAAA AAAATGACAG ATGTTGAATG
 2461 CCCACAGGCA AATGCATGGA GGGTTGTAA TGGTGCAAT CCTACTGAAT GCTCTGTGCG
 2521 AGGGTTACTA TGCACAATTT AATCACTTTC ATCCCTATGG GATTCAAGTC TTCTTAAAGA
 2581 GTTCTTAAGG ATTGTGATAT TTTTACTTGC ATTGAATATA TTATAATCTT CCATACTTCT

2641 TCATTCAATA CAAGTGTGGT AGGGACTTAA AAAACTTGTA AATGCTGTCA ACTATGATAT
 2701 GGTAAGAGTT ACTTATTCTA GATTACCCCC TCATTGTTTA TTAACAAATT ATGTTACATC
 2761 TGTTTTAAAT TTATTTCAAA AAGGGAAACT ATTGTCCCCT AGCAAGGCAT GATGTTAACC
 2821 AGAATAAAGT TCTGAGTGT TTTACTACAG TTGTTTTTTG AAAACATGGT AGAATTGGAG
 2881 AGTAAAAACT GAATGGAAGG TTTGTATATT GTCAGATATT TTTTCAGAAA TATGTGGTTT
 2941 CCACGATGAA AAACCTCCAT GAGGCCAAAC GTTTGAACT AATAAAAGCA TAAATGCAAA
 3001 CACACAAAGG TATAATTTTA TGAATGTCTT TGTTGGAAAA GAATACAGAA AGATGGATGT
 3061 GCTTTGCATT CCTACAAAGA TGTTGTGTCAG ATGTGATATG TAAACATAAT TCTTGTATAT
 3121 TATGGAAGAT TTTAAATTCA CAATAGAAAC TCACCATGTA AAAGAGTCAT CTGGTAGATT
 3181 TTTAACGAAT GAAGATGTCT AATAGTTATT CCCTATTTGT TTTCTTCTGT ATGTTAGGGT
 3241 GCTCTGGAAG AGAGGAATGC CTGTGTGAGC AAGCATTTAT GTTTATTTAT AAGCAGATTT
 3301 AACAAATCCA AAGGAATCTC CAGTTTTCAG TTGATCACTG GCAATGAAAA ATTCTCAGTC
 3361 AGTAATTGCC AAAGCTGCTC TAGCCTTGAG GAGTGTGAGA ATCAAAACTC TCCTACACTT
 3421 CCATTAACCT AGCATGTGTT GAAAAAAGAA GTTTCAGAGA AGTTCTGGCT GAACACTGGC
 3481 AACGACAAAG CCAACAGTCA AACACAGAGT GTGATAAGGA TCAGAACAGC AGAGGTTCTT
 3541 TTAAGGGGCG AGAAAACTC TGGGAAATAA GAGAGAACAA CTACTGTGAT CAGGCTATGT
 3601 ATGGAATACA GTGTTATTTT CTTTGAAATT GTTTAAGTGT TGTAATATAT TATGTAAACT
 3661 GCATTAGAAA TTAGCTGTGT GAAATACCAG TGTGGTTTGT GTTTGAGTTT TATTGAGAAAT
 3721 TTTAAATTAT AACTTAAAT ATTTATAAT TTTTAAAGTA TATATTTAT TAAAGCTTATG
 3781 TCAGACCTAT TTGACATAAC ACTATAAAGG TTGACAATAA ATGTGCTTAT GTTT

(2) INFORMATION FOR SEQ ID NO:2480:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 141589 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2480:

1 GATCAAAATT TTTACCTATT ATGCATTTGA TATATAAATA AGTATATAAA TGCACACACA
 61 GACACAGCAA TGATGGTGAA CAGTCTTCAT ACAATTATAT GGATGAATCT CATAAAATGC
 121 TGAGTTAAAG AAATCAGACC AAAGAACATA TACTGAAAGA TTCTCTCTAT ATACAAAGTT
 181 CAAAAATAGG TGGACCAATT CATGGTGGTG TTAGAAATCA GAAGAGAGGC TACCTTTGTG
 241 GGGAGGGGAC AGTTTAATGC CCAGAAGCGG TAAATAAGGA ATCCTCTGGG GAGTGGTAAT
 301 GATCTGGATG CTGGCTACAG GATGTGTTGG TTGTAAAAAT GCATTTTTTT ATATCTAGCT
 361 TTTTCCATGT GTATATTATA CTTCAAAGAA GTTCAGTTAA TAATTTCTCA TGTCACTGTA
 421 GAGTAGCTCA GTTAGCCCCA GCAAGCCTCT GGCTTAATCT TGTTTACCT TAAGCCATCA
 481 GTCATTTACA AGTAGGAAAA TTCACAGGGA AAGTTAGAGT ATAAATCCA GAATGAAGGT
 541 TTAGTGGGTA AGAGTCTCTC CATTTTCCAA AGCCCGTTTA TTCTTGATT CCAGTTCTTA
 601 AGAAGTCTCA GCATTGTGTC TTTTTCATGT ATCTTACAAG AAGACAGCAT GTGCTTCTAA
 661 CACCTGATAC ATTGTATCTA CCAGCACTTG GTAAACAGAA AAGAACCACA TTTTCTTGT
 721 AGGAGAAATT TGGTGCCAT TCCCTACCAG GCACCAATAA GTGGGACCAA TAGTGGGAT
 781 TAAAGATACA GTAGAAAGTA TTTAAACTT GCCAGGGGGC AATAGTCTGA AAATAAGTAA
 841 ATTGGTGCTA TAGAATGGAA GTTACAGGCT TCTTCTTTT TCCCACAAAG ATCTGCTCCT
 901 TGAGCCCCTA GAGACTTTTC TGTCTGTTAC TGTTTCTTCA TTCCTCATCT GCAGAGCCAG
 961 CCTGAGAAAG TGCAGACCAA AGCCAGGGAA GGCTCTGCAA AGATGTACAA ATGGAAGTCA
 1021 CCTTAATAAC CTCTGACTGC TGCGCATAAT ACATTTCACT CAAAAGAGGG GTTAAACAAT
 1081 GGAACAGAAT ACAGAGGCCA GAAATAATGC TGAACACTGA CAACCATCTG ATCTTTGACA
 1141 AAATCCACAA AAACAAGCAA TGGAGAAAGG ACTCCCTATT CCATAATGGT GCTGGGATAA
 1201 CTGTCTAGCT ATATACAGAA GATTGAACCT GGGCCCTTC CTACATCAT ATACAAAAAA
 1261 TAACTCAAGA TGGAGTAAAG ACTTAAATCT AAAACCAAC ACTATAAAAA CCCTGGAAGA
 1321 TAGCCTGGGA AATACCATT TGGACATAGG ACCTGGCAAA GACTTTCATGA CAAGACACCA
 1381 AAAGCAATAG CAACAAAAAC CAAATTGACT AATGAAACTA ATGAAACTCT TTAGTTGTAC
 1441 AACAGATAGT TTAGTCTGTAC AACAAAATAA ACTATCAACA GAGTAAACAA CCTACAGAAT
 1501 GGAATAATTT TTTGCAAACT ATGCATCTGA CAAAGGTCTA ATATCCAGAA TCTATAAGGA
 1561 ATTTAAACAA ATTTACAAGC AAAAAAATGA CCTCATTTAA AAGTGGGCAA AGGACATGAA
 1621 CAGATGCTTT TCAAAATAAG ACATTACAC ATCCAACAAC CATATGAAAA GATGTTTAAAC
 1681 ATCACTAATC ATTAGAGGAA TACAAATCAA AAGCATAATA AGATACCATC TAATACCACT
 1741 AGGAATGACT ACTATTAAAA AGTCAGACAA TAACAGATGC TGGTGAAGGT TGTGGAGAAA
 1801 AGGGAATGTT TATGCACTGC TAGTGGGAAT GTAAACTAGT TCAGCCATTG TGAAGAGAG
 1861 TGTGGTGATT CCTCAAAGAA GTTAAAACCG AACTGCCTTT CAATCCAGCA ATCCCATTTAT
 1921 TGGATATACA CCAAAAAGGAA TAGAAATTGT TTTACCGTAA AGGCGCATGC ATGCATATGT
 1981 TCAATTACAGC ACTATTTACG ATAGCAAAGA CATGGAATCG TCTAAATGCC CATCAGTGGT
 2041 AGACTAGCTA AAAAAAAGAA AATGTGGTAC ATATACATCA CAGAATAGTA TGCAGCCATA
 2101 AAAATGAACA AGATCATCAT GTCCTTTGCA GCAACATGGA TGTAGTTGGA GGCATTATC
 2161 CTAAGCAAT TAATGCAGGA ACAGAAAGCC AAATACCACA TGTTCTCATT TATAAGTGAC

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6301 TGCAATATTG AGGTGGTTAT ATGGTTTCTC TTCTCTAATC TGTTAATATG GTGATTTAAT
6361 GGTTAGAAAT TTTCTAATGT AAATTCCACT CATATTGCAG AAATAAACCT AAACGTAGCA
6421 TGAGGCTATA TTTTTTATTT GCTTCTATAT TTGGTTGCTA TACAGTATTA TGTTTAAGAT
6481 TTGTTACAT ATATTTGTGA ATGGGATTGG ACTATTTTTC CTCTTGCCG ATTTTTATCT
6541 GATTTTAAA TTAAGGATAT TTAGACTTA TGAAATATTT GGCAACAAT CCTTGGCAAG
6601 TAATTTTGTG GGAATTTGT TTTGGCTATT TTGAGTATTA CCAATATAT TTTAATTAAG
6661 TTATTCTTAA TGTTTTCTTA ATTAATAAAA TTACCTACTC TAGAGATATT CTTTATGTAC
6721 TCCAGATTTT GTCTATTTAT ACCACTTTTC TTTTTCCTC GATGAGTGTC ATAGATGTTT
6781 ATCTATTTT TTATCTTCTT TGATCTTCTC TTATTCCTTG TTTCTATTAA CTCTGAAGT
6841 TTATTATTTT CTTTTTCCA CTTCCTTATG GTTTATTTCT TCAATTTTTC TCTAACTTCT
6901 TAAGTTGGGT GTTAAATTTT TAGCTTGCTT TGCTTTTTTA GGATAAGCAT TAAACATACA
6961 AATTTTCCTT GTTATTTCTT TGCTGCACCC CAAATTGTTG ATATTTCTAT TGTCTAATTT
7021 CTATTTCAAT AGAATACTTT AAAGTTTCTT TTPGGTTTTC AAAAATAAC TTTTAAATTT
7081 GACAAATAAA AATTGTGTAT ATTTATTGTG CACAGCATAT GGCTTTGAAA TATATGTACA
7141 TTGTGGAATG GCTAAATTTA GCTTATTAAT GTATGCATTA TCTCACATAC TTATCATTTT
7201 TTGTGGTGAG AGCTATGTGA CTTTGAACCT TATGAGTTAT TTAATATTTT TTAATATTAT
7261 AAGCATATTG GGATTTTAAG TAATTTACCT TTTTATTTAT AACTTATAAC AAGTAGAACA
7321 GTTAACCTGT ATGATTCTAC ATCATTGAAA TTTATTGACA TTGCTTCAT AGTCTATAT
7381 ATGGTCTACT TTTGTTTCATG TTACATCTGT AGTAGAATTG GCTAATAGTT GAGTAAAGTA
7441 CACATATGCT TATGAAATCC AGTGTAATCC AGAGAAAAG AGAAATTAC TGAATATATT
7501 GTTCTAGGTG CTATTATATG TTGTCATGTT TAATCCTCAC CACAATTGTA TGAGGCAGCC
7561 ATAATTAATT CCACTTTACA CATGAGGAGC CTGAGGGTTA AAAAAAAGC TAGCTCTACT
7621 ATTTGTAAG AATGAAGCAA AGATACAAAT GAAGGCCAC ATATCCTATA ACTAGATATT
7681 TAAGCATTTT AATCAAGCT TTAATACTGC TAAATAAAT GTGCTCCAAT TTCTATATTG
7741 ACAGACATAC CTTCTAATG AGCTGGGGTT CGAATTTAGA AATCTTTGAT GCTTCAGAGT
7801 CCACACTGAA ATGTGGAGGC ACATAGTGAG TTGGTCCCCA GCCTTCAGTC CACCCACCTT
7861 CTCTTTACTA AATCACCTTT CACATACATG TATGAACACC CCAGCCTCCA AGTCCAAACC
7921 CTAACAACAAA TGGGACACCC TTGTGCATAC ACAGAGACAC AGCCCATCCT CAGGAAAACC
7981 TGAAGAAAGTC CATACAAGTT CTGGAAGCAA GCTTGGGACG GTTTCAGTAG TGTGGTCTAT
8041 AAGGGAGGCC TCAGAAGACA GGTTTTCTTA ATTCTGTGAA CTCTCCAC AGTAGAAAGG
8101 TGCTGGAGG AGGGTCAGAG TGAGGACTTC TAAAGCATGG GTCCTGAGTA GGGGCCATC
8161 TTGCCAAGT CTAAGAAGGG TACTAGAATA GCACACTACT ACTAGATACT AGAACCAGAG
8221 TACAAGCACA GGTCTTCTGA AATTAATAAT AATAATAACT ATTACCATA TTATACCAAT
8281 AGCTGTCTAT TATTTAGTGC TTATTATTG CAGTCACTG TTCTAAATTC TTTACATGTA
8341 TTATACAACT GCCATATAAC TGCCATATGA GGGATGTACC CTCATTGTCA CCATTTTACC
8401 GATGAGAAAA CTGGCATAAA ACGTTTAAAT AACTTGTCCA AGTTACAGAG CTAGTGAAG
8461 CCACAATGTT GCTCAATTTG CTCTCAAACT TCAAAGGGAT GGAAGGACA CCTAAGTCAT
8521 AGAGTCTTTA AGAATCAGAG CTAGAAGGAA TCTTAGATGT TATCTAGTCA GCCTCCTCC
8581 ATTACAGTCC AAGAGAAGAT GGCCCTGAGT TACTTGTAGC TATTTTGTGA TGTGAATTGC
8641 AAGTGAATAT ACATTTCTACT GAAGATAAAA GATATTTAAA GATATCGCTG GATATAGGAA
8701 CAGTGGTTTT AAATCTCTAG GCTTTAACTT TTCTCAGAAC AAGAAATCCT TTTTGGTTTT
8761 AATCTATATG CACATCTGTA TTTTCTCAA TTATCGGGTA GTAAATATA ACTTTTCTTC
8821 TGAATATTTT TTTAACTTTA ATGAGTGTTC CTCATAATAG AAAAGTTGG AAACCATGTC
8881 TATGGGTATA TACTTTCTAA AGGGATAGTA ATTTCTCTAG AATATTCTAT TAATGCTCCA
8941 GAAGTAATTA GCCAATTTGT GCAAGTCTGT GCATCATCAA CTATACATTC TGCCTGTTTA
9001 CTCCAAATCC ACATGAACT GATTATACAG TCAAAGGCGA GCCCAGTGA GAGGCATTTT
9061 TGGAGACTTC CTGGTACATT GAGACAGGGT CGGCCAGTCT GCGTTAGGGT CTGTGTCAAA
9121 ACTGCATTTT TGAACATAAA CTCAGATTGC TTTCTTTTAA GGGGTACAGAA CTGATTCAAA
9181 TCTACATTTT TAAAAGCCTT AGATGTGGGG CTTTCTCTAT TCCCAGTCTC CGCTATTGGT
9241 CTTTGTGAAT CCACAGGCAA TTTGGCCACA TCCTTGACTC TCTCTTATAT TAAGAATTAA
9301 ACAGCTAAGT TCATGCAGAG GAAATATAAC AAAGGAGGGA CTTTCTTACA AGATCTTTGA
9361 AAAATGGAAC ATTTGCATAA GTCATATTTA GCCAGAATCG TTGTTTTATA TTTTCTTTT
9421 TGAATACTTT GTTACACCTC CTCCAGCCA ACCCCCCCCC TCCCTGACCC CAACCTAGTCA
9481 GAGACCAAAG CCTTCACAAT GGTTTTCACT TGAACCTTCC TGGCCCCACC CTCATCATCA
9541 CGCCTGAATA ATTACATTCA CTGACTGGTC TCCCCTGCTT CCGTTTATCT CCACTCTTAA
9601 ACCCTCTGAC ACCTTAATCT TCCCAGAATA CCATTGTGAT CCGTTTCCAC TCTTGCTCAA
9661 GTTTTCCAG AACTAGAGT ACAAACCTTA TAAGCTTTAG AGTTGAAAGC CACTCTATCT
9721 CTTTTCATC CCCAGGTCTC TGCCAAGGCA GTATAACCTG TCCAACATCT CTAACCTCAA
9781 TACCTTTGTC TTAGATACTA GACTCTCTC CTGGTTTCTA ATTAACCTG ATCTAGATC
9841 TAATTTTGCC TCTGAATTCT GTTGCCCTTT GCCAAGTGAT CTCTTCTCTC TCTGAGCCGC
9901 AGCATCTCTG AGCTTGACA CTTAGCATAG CCATAGCACA CACAGCTTA GCTTGAGTT
9961 CAGGGTGTTC ACCTTCCCTC CCCTTCCAGA TGCTGGATCC CCAGGGATAG GAACTCTGCC
10021 CTTATGTGTC CATAGCCCT GGTAGTATGT CTTGCAGTCG TACATTTTCA GCAAATGTTT
10081 AATTGGTTAA TTGAAGACAA CTGTCCCATG CCTTAAGCCT CTCTTTTGC TAAACATGCC
10141 TGTGTCCTTT GTCATTGAAC AACTATTTTG ATCTATTTTC TTCCTGACAT AGGGGTGAGT
10201 TCCGAGGATG CTGAAATCAA GAGACATAGC TTATTCTCTC AAAATTGCTT TCAAGAGTGA
10261 TTTTGTGTG AATTGAGAAC TGGCTGCCTA CTTTGGGACT ACCCACTTCA GCAAGAGTGT
10321 TTGAACCAA ATCTATTCTA AGTAATTTTT TATTCCCTTT TCTCTATGGC ATTAGACACA

10381 CAGCTCTTTT AAACCTACCTT TCGTTATCTA TTAAACAGAC ATTCACTAAC TCTATAGACA
 10441 CTGTCTAGCT ATATGAACCT AGACAAACTA ATATCTCTGA GCTTCAGTTT CTTAAAATTT
 10501 AAAATGAGGA CAATACCATC TATGGCCGGG GATTAAATGC TATGAGGAAT GTAAACCAGA
 10561 TGTCAGGTAC CATCTCTCTA AAATCCAGAT AAAATGAATT AAAAATACTG GCCGCAAAAC
 10621 CTCTCTAAGA GTTCTCAAAA TTCTCAGAGA GCTTAATTTT CATGCTCACC ATAGCACCGA
 10681 TTTTCTTCTA AATATTTTGT TTCTACCAAA ATATTTTGTG CCAATTTTGC CTTTATGGC
 10741 TATTTCTTCA TATCCACTTT CCAAACCTAA AGAAGCAGCC CCTTCACCTT AAACCTCTCC
 10801 TTCAAAGCAA CCTAAATACA GGTCTGGGTT TGTATTCTTA GTGGGATGTT ACAGAGGTTA
 10861 GTGTGATGCA GAGGAGGAGT CATGCTGTTT AAATCCATAC TAGTCCCCAG AGGCCAGGCT
 10921 GCTTCTGCCA CCCCTACCCC TCCCGCCACA GAGCTCTTCA GCTTCTCACA TTTCTAGTTC
 10981 TTCTCTCTCT ACTTTCATTA CCTTCTCTCT TTTTCTTCTT CTCTCATGT GCTCACGGGA
 11041 GCAGAGAAAA TTAACCTCTC TAAGTTTCTT TAACACAGAG TGCCTTAATT ACATATTACT
 11101 ATTGTGTTAG TTCTTGCCAA CACTACGTCT GTAGGGTCAC ACCTGCTATA TTAGAGGCTT
 11161 ATCAAAAAAA GATAGCTTTC TCCTAAAAAG GGATTTGGAT GCCTACTAAG ATAAGTGGAT
 11221 GCCAAGATAA GTTTAACTTA ACAAACCTTA TTATTATTAT TATTATTATT ATTAGAGATA
 11281 GGTACTTATT CTGTCACCCA GACTGCAGTG CAGGGATGCA ATAATAGCTC ACTGCAGGCT
 11341 CAAAGTCTTG AGTTCATGCA ATCCTTCTGC TTCAGCTCCC TGAGTAGCTA GGACTACAGG
 11401 CATATGCTAC TCTGCCACGC TACTTTTAAA AAAATAATTA GGGATGGGGT CTTGTTGTAT
 11461 TGCCCAAGCT CGTCTCAAAC TTCTGGTTTC AAGCAATCCT CCTGCTTTT ACCTCCCTAA
 11521 TTCTTGGAGT TACAGGCATG AGCCACAGCA CTCACCAAG ATTTAAAAAC TTTTAAAAAG
 11581 AATCACATTA CTTACTGTTA TCATCATTAT GGTACTACTC AGTGTAAAA CAATTGGTAT
 11641 TGAAACACCC ACTACCAGAT CAAGCTTCAA ACCAAGATGT CAAGTAAATA TTATTGTCAG
 11701 ACCTCTGAGC CCAAGCCTGC AGGTATACAC CCAGATGGCC TGAAGCAAGT GAAGAATCAC
 11761 AAAAGAACTG AAAATGGCCG GTTCTGCTCT TAAGTATGTA CATTCCACCA TTGTGATTGG
 11821 TTCTGCCCCC ACCTTGACTG AGGGATTAACT CTTGTGAAAT TCCTTCCCTT GGCTCAGAAG
 11881 CTCCCCGACT GAGTACCTTG TGACCCCTAC CCCTGCCAC AAGTGAAAAA CCCCCTTTGA
 11941 CTGTAATTTT CCACTACCCA CCCAAATCCT ATAAAACAGC CTCACCCCTA TCTCCCTTCG
 12001 CTGACTCTCT TTTAGACTC AACCTGCCTG CACCTAGGTG ATTCAAAAGC TTTATTGCTC
 12061 ACACAAAGCC TGTTTGGTGG TCTCTTCACT CAGACCATGT GACATTGGT GCCGTAACCTC
 12121 AGATCGGGGA ACCTCCCTTG GGAGATCAGT CCCCTGTCTT CCTGCTCTTT GCTCCATGAG
 12181 AAAGATCCAC CTATGACCTC TGGTCTCAG ACCAACCAGC CCAAGGAACA TCTCACCATG
 12241 TTTAAATTTG GTAAGTGGCC TCTTTTACT CTCTTCTCCA GCCTCTCTCA CTATCCCTCA
 12301 ACATCTTTCT CTTTCAATC TTGGCACCAC GCTTCAATCT CTCCCTTCCC TTAATTTTCA
 12361 TTCTTTTCTT TTTCTGGTAG AGACAGAGGA AACGTGTTCT ATCTGTGAAC CCAAACTCC
 12421 AGCACTGGTC ATGGACTTGG AAAGACAGTC TTCCCTTGAT GTTTAATCAC TGCAGGGATG
 12481 CCTGCTGAT TATTCACCCA CATTTACAGC CTGTCTGATC ACTGCAGGGA CGCCTGCTTG
 12541 GATCCTTAC CTTAGTGGCA AGTACCCTT TGCCTGGTG GCAAGCACA CCTCTCTGG
 12601 GGGGCAAGCA CCACCTCTCC TGGGGGGCAA GTACCCCTCA ACCCTTCTC TCCATGTCTC
 12661 CACCTCTCT TCTCTGGGCT TGCCTCCTTC ACTATGGGCC ACCTTCCACC CTCCATTCCT
 12721 CCCTTTTCTC CCTTAGCCTG TGTCTCTCAAG AACTTAAAC CTCTTCAACT CACGTCTGAC
 12781 CTAAACCTA AATGCCCTAC TTTCTTCTGC AATACCGCTT GACCCCAATA CAAACTCAAC
 12841 AATGGTTCCA AATAGCCTGA AAACGGCACT TTCAATTTCT CCATCCCAACA AGATCTAAAT
 12901 AATTCTTGTG GTAAAATGGA CAAATGGTCT GAGGTGCTCG ACATCTGGGC ATTCTTTTAC
 12961 ACGTCTGTC CTCCCTAGTC TCTGTTCCCA ATGCAACTCA TCCCAAAATC TCCTTCTTTC
 13021 CCTCTGCTCT GTCCCTCAG TCCCAACCCC AAGTGTGCT GAGTCTTTC AATCTTCTT
 13081 TTCTACTGAC CCATCTGACC TCTCCCTCT TCCCCAGACT GCTCTCTCTC AGGTGCTCTC
 13141 CCGCCAGGCT GAATCAGGCT CCAATTTCTT CTCAGCGTCC GCTCTCTCAC CCTATAATCC
 13201 TTCTATCAC TCCCTCTCTC ACACCTGGTC CAGCTTACAG TTTCAATCTG TGACTAGCCC
 13261 TCCCCACCT GCCCAACAAT TTCTCTTAA AGAGGTGGCT GGAGCTAAAG GCATAGTCAA
 13321 GGTTAATGCT CCTTTTCTT TATCCAACCT CTCCCCTCTC AGTTAGTATT TAGGCTTTTT
 13381 TTCAATCAAT ATGAATACCT AGCCCACTCC ATGGCTCATT TGGCAGCAAC TCCTAGACAT
 13441 TTTACAGCCT TGGACCCAGA GGGGCCAGAA GGTCACTTAA TTCTCAATAT GCATTTTATT
 13501 ACCCAATCCA CTCCCAACAT TAGAAAAAGC TCCAAAAGTT AGACTCCGGC CCTCAAACCC
 13561 CACAACAGGA CTTAATTAAC CTGCTCTTCA AAGCGTACAA TAATAGAGTA GAGGAGGCA
 13621 AGTAGCAACA TATTTCTGAG TTGCAATTCC TTGCTCTCAC TGTGAGAGAA ACCCCAGCCA
 13681 CATCTCCAGT ACACAAGAAC TTCAAAATGC CTAAGCCACA GTGGTCAAGC ATTCCTACAG
 13741 GACCTCTCTC ATCAGGATCT TGCTTCAAGT GCCAGAAATC TGGCCACTGG GCCAAGGAAT
 13801 GCCCTCAGCC TGGGATTCCT CCTAAGCCAT GTTCCATCTG TGTGGGACCC CACTGGAAT
 13861 CGGACTGTC AACTTGCCCA GCACCCACTC CCAGAGCCCC TGGAACCTG GCCCAAGGCT
 13921 CTCTGACTGA CTCCTTCCCA GATCTTCTTG GCTTAGTGGC TGAAGACTGA TGCTGCCTGA
 13981 TCGCTCTAGA AGCCTCTCTG ACCATCACAG ATGCTTTTGG TAACTCTTAC AGTGAGGGGT
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128401 CTCCTGAGCT CAAGTGATCC TCCTGCCTTG GCCTCCATAA GTGCTGGGAT TACAGGCGTG
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128521 ATTGCCCAGG CTGGAGAGCA GTAGTGCGAT CATAGCTCAC TGCAGCCTGA ACTCCTGGGT
128581 TCAAGCTATT CTCCTGCCTC CATCTTCTAA AGTGCTGTGA TTACAGGTCT GAGCCATGAT
128641 GCTTGGCCTG TGTGTTGTTT TGTTGTTT GGGGGACAGG GTCTTGCTTT GTCACCAAAA

128701 CTGGAGTGTA GTGGTGCAGAA CATAGCTAGC TCACTGCAGC CTCCATCTCC CACGCTCAAG
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128821 GCTAATTTTC TATTATATA TTTATTTTTT GGTAGACATG AGGTCTTGTC ATGTTTCCCA
128881 GGTGGTCTTT AACTCCTGGG CTCAGACAGT CCTCCCGCCT CAGCCACCCA AAGTGTGGG
128941 ATTACAGCG TGAGCCACCA TGCCTGGCAT AATTTTTTTT AAGTAAATTA TTTTTTTATC
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129061 AAGATTACAA AACATCTAAT CTGAAATGGT TAAGATTTTG ATGAGAACAG TCTCATCTCA
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129181 TTGGTGTTAT ATTTTGGAAA CTTTTTGTTT AACTACATTG TGAACATTTT TCATGTTTTA
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 141361 AATGCCAGCT ACTTGGGAGG CTGAGGCAGG AGGATCACTT GAACCCAGGA GGTGGAGGTT
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(2) INFORMATION FOR SEQ ID NO:2481:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1310 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2481:

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 61 ATCAGTGATA ATCCTGAGAG ATACAGCACA AATCTAAGCA ATCATGTGGA TGATTTACAC
 121 ACTTTTCGTG GCACAGAGCT CAGCTTCCTG GTTACCACTC ATCAACCCAC TAATTTGGTC
 181 CTACCCAGCA ATGGCTCAAT GCACAACTAT TGCCACACAG AGACTAAAAT TACTTCAGCT
 241 TTCAAATACA TTAACACTGT GATATCTTGT ACTATTTTCA TCGTGGGAAT GGTGGGGAAT
 301 GCAACTCTGC TCAGGATCAT TTACCAGAAC AAATGTATGA GGAATGGCCC CAACGCGCTG
 361 ATAGCCAGTC TTGCCCTTGG AGACCTTATC TATGTGGTCA TTGATCTCCC TATCAATGTA
 421 TTTAAGCTGC TGGCTGGGCG CTGGCCTTTT GATCACAATG ACTTTGGCGT ATTTCTTTGC
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 541 CTTAGTGTTG ACAGGTACAG AGCAGTTGCC TCCTGGAGTC GTGTTACAGG AATTGGGATT
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 661 CCTGAAGCGA TTGGCTTCGT CATGGTACCC TTTGAATATA GGGGTGGACA GCATAAAACC
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 841 ACTGGTGAGA TGTGAACAG AAGGAATGGC AGCTTGAGAA TTGCCCTCAG TGAACATCTT
 901 AAGCAGCGTC GAGAAGTGGC AAAAACAGTT TTCTGCTTGG TTGTAATTTT TGCTCTTTGC
 961 TGGTTCCTCT TCTATTTAAG CCGTATATTG AAGAAAACCTG TGTATAACGA GATGGACAAG
 1021 AACCGATGTG AATTACTTAG TTTCTTACTG CTCATGGATT ACATCGGTAT TAACCTGGCA
 1081 ACCATGAATT CATGTATAAA CCCCATAGCT CTGTATTTTG TGAGCAAGAA ATTTAAAAAT
 1141 TGTTTCCAGT CATGCCTCTG CTGCTGCTGT TACCAGTCCA AAAGTCTGAT GACCTCGGTC
 1201 CCCATGAACG GAACAAGCAT CCAGTGGAAG AACCACGATC AAACAACCA CAACACAGAC
 1261 CGGAGCAGCC ATAAGGACAG CATGAACCTA CCACCTTAG AAGCACTCCT

(2) INFORMATION FOR SEQ ID NO:2482:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1868 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2482:

1 GAATTCGGGA AAAAGTGAAG GTGTAAGAGC AGCACAAGTG CAATAAGAGA TATTTCCTCA
 61 AATTTGCCCTC AAGATGGAAA CCCTTTGCCT CAGGGCATCC TTTTGGCTGG CACTGGTTGG
 121 ATGTGTAATC AGTGATAATC CTGAGAGATA CAGCACAAT CTAAGCAATC ATGTGGATGA
 181 TTTCAACCACT TTTCGTGGCA CAGAGCTCAG CTTCTGGTT ACCACTCATC AACCCTAA
 241 TTTGGTCTTA CCCAGCAATG GCTCAATGCA CAACTATTGC CCACAGCAGA CTAATAATTAC
 301 TTCAGCTTTC AAATACATTA AACTGTGAT ATCTGTACT ATTTTCATCG TGGGAATGGT
 361 GGGGAATGCA ACTCTGCTCA GGATCATTTA CCAGAACAAA TGATGAGGA ATGGCCCCAA
 421 CGCGCTGATA GCCAGTCTTG CCCTTGGAGA CCTTATCTAT GTGGTCATTG ATCTCCCTAT
 481 CAATGTATTT AAGCTGCTGG CTGGGCGCTG GCCTTTTGAT CACAATGACT TTGGCGTATT
 541 TCTTTGCAAG CTGTTCCCTT TTTTGCAGAA GTCCCTCGTG GGGATCACCG TCCTCAACCT
 601 CTGCGCTCTT AGTGTGACA GGTACAGAGC AGTTGCCCTC TGGAGTCGTG TTCAGGGAAT
 661 TGGGATTCTT TTGGTAACTG CCATTGAAAT TGTCTCCATC TGGATCCTGT CCTTTATCCT
 721 GGCCATTCCT GAAGCGATTG GCTTCGTCAT GGTACCCCTT GAATATAGGG GTGAACAGCA
 781 TAAAACCTGT ATGCTCAATG CCACATCAAA ATTCATGGAG TTCTACCAAG ATGTAAAGGA
 841 CTGGTGGCTC TTGGGTTTCT ATTTCTGTAT GCCCTTGGTG TGCATGCGA TCTTCTACAC

901 CCTCATGACT TGTGAGATGT TGAACAGAAG GAATGGCAGC TTGAGAATTG CCCTCAGTGA
 961 ACATCTTAAG CAGCGTCGAG AAGTGGCAAA AACAGTTTTC TGCTTGGTTG TAATTTTTGC
 1021 TCTTTGCTGG TTCCCTCTTC ATTTAAGCCG TATATTGAAG AAAACTGTGT ATAACGAGAT
 1081 GGACAAGAAC CGATGTGAAT TACTTAGTTT CTTACTGCTC ATGGATTACA TCGGTATTAA
 1141 CTTGGCAACC ATGAATTCAT GTATAAACCC CATAGCTCTG TATTTGTGA GCAAGAAAT
 1201 TAAAAATTGT TTCCAGTCAT GCCTCTGCTG CTGCTGTTAC CAGTCCAAAA GTCTGATGAC
 1261 CTCGGTCCCC ATGAACGGAA CAAGCATCCA GTGGAAGAAC CACGATCAAA ACAACCACAA
 1321 CACAGACCGG AGCAGCCATA AGGACAGCAT GAACTGACCA CCCTTAGAAG CACTCCTCGG
 1381 TACTCCCATA ATCCTCTCGG AGAAAAAAT CACAAGGCAA CTGTGAGTCC GGAATCTCT
 1441 TCTCTGATCC TTCTTCCTTA ATTCACCTCC ACACCCAAGA AGAAATGCTT TCCAAAACCG
 1501 CAAGGGTAGA CTGGTTTATC CACCCACAAC ATCTACGAAT CGTACTTCTT TAATTGATCT
 1561 AATTTACATA TTCTGCGTGT TGTATTGAGC ACTAAAAAAT GGTGGGAGCT GGGGAGAAAT
 1621 GAAGACTGTT AAATGAAACC AGAAGGATAT TTACTACTTT TGCATGAAAA TAGAGCTTTC
 1681 AAGTACATGG CTAGCTTTTA TGGCAGTTCT GGTGAATGTT CAATGGGAAC TGGTCACCAT
 1741 GAACTTTAG AGATTAACGA CAAGATTTTC TACTTTTTTT AAGTGATTTT TTTGTCTTC
 1801 AGCCAAACAC AATATGGGCT CAAGTCACTT TTATTTGAAA TGTCATTGGG TGCCAGTATC
 1861 CCGAATTC

(2) INFORMATION FOR SEQ ID NO:2483:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 752 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2483:

1 CACCGCTCCT GTCAGCCAAC AAATATCCAT TGAGCGACAC CTGTGTCCCA GGTGCTGCTC
 61 TGGGGCCTGG GAGAAGTGCA TCAGTGGGCT TGGTAGTAGA GGGTAGGGAT GGAGTGAAGG
 121 GTAGGCAGGA AGAATGTCCC CAGGCTGGTA GGAGGTGGGG TGGGGGGTTT CAGTCTCAAA
 181 ACTCCCATGA AAACCAGAGA GAAGTTTCAG AACTCCACCC AAGAGGCTGG GTTCTAGGG
 241 CCCAGAGCTG CCCTCCCCCA CCTAGAATG GGCTATAAAA GTCCCTTCCC AGCTACGTCC
 301 AGAGAAGAGC TGGAGGAAGT GAGAGGTCGG CTGGGGGTCC TCAAAGTGAG AGGGGAGCAG
 361 AGGATCCTCC CGTGCAGGCT GTGGATGTCA CTCACTTCCC AGCTGGTGAA GCCTCGCTGC
 421 AGAGATGCAT CTGCTCCAG CCCTGGCAGG GGTCTGGCC ACTCGTCC TCGCCAGCC
 481 CTGTGAGGGC ACTGACCCAG GTAATAGTCC CCTAGACAGG CAAGGAGGAG GGAGGGGAAA
 541 TGGGAAGGGA AGCACTTGGG TCTTGGAGGG GGTCTGTGG CTTGCTGAAC CCTGAGTCCC
 601 CATCTCTTTG AACAGCCTCC CCTGGGGCAG TGGAGACCTC GGTCTGCGA GACTGCATAG
 661 CAGAGGCCAA GTTGCTGGTG GATGCTGCCT ACAATTGGAC CCAGAAGAGG TGGACTTGGG
 721 TCTGGGGGCT GCATGGGCCT GGGAGGATCA GT

(2) INFORMATION FOR SEQ ID NO:2484:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 403 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2484:

1 TAATACCTTG TGGGGTCAGG GAGCCCATGT CCCGTGCTGA TGTTATTTC CCACCAGGTC
 61 CGGGCTGTCT CCAACCAGAT TGTGCGCTTC CCCAATGAGA GACTGACCTC CGACCGTGGC
 121 CGAGCCCTCA TGTTTCATGCA GTGGGGCCAG TTCATTGACC ATGACCTGGA CTTCTCCCCG
 181 GAGTCCCCGG CCAGAGTGGC CTTCACTGCA GGCCTTGACT GTGAGAGGAC CTGCGCCAG
 241 CTGCCCCCTT GCTTTCCCAT CAAGGTACCT ACCCTCAGCC AATCTCCCAT GCCCTTGTGT
 301 GGCCTCCCCC AAAGGCAAGG TGCTGGGGGT GGGGATCTGG AAGACTGGAG CACCATCCTT
 361 AAGGAGCTGC CTGTGGAGCT AGGTATGAG ACAGAGACAC AAG

(2) INFORMATION FOR SEQ ID NO:2485:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 482 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2485:

1 CACTGTCTCC TCTTCCATCT CAGATCCCAC CCAATGACCC CCGCATCAAG AACCAGCGTG
 61 ACTGCATCCC TTTCTTCCGC TCGGCACCCT CATGCCCCCA AAACAAGAAC AGAGTCCGCA

121 ACCAGATCAA CGCGCTCACC TCCTTTGTGG ACGCCAGCAT GGTGTATGGC AGTGAGGTCT
 181 CCCTCTCGCT GCGGCTCCGC AACCGGACCA ACTACCTGGG GCTGCTGGCC ATCAACCAGC
 241 GCTTTCAAGA CAACGGCCGG GCCCTGCTGC CCTTCGACAA CCTGCACGAT GACCCCTGTC
 301 TCCTCACCAA CCGCTCGGCG CGCATCCCCT GCTTCCTGGC AGGTCAGACA GGGAGGAAGG
 361 TGGTGTCTTC CCAGGAAACA GCCATCCCTG GGGTCCCAAC TGGGAAGCAA TGGTGGGATG
 421 TGTGAAGGT ACATGGTTTG GGACCTCAGT ATTAGGCACA CCATAAGCAT GGATCTGTGC
 481 AC

(2) INFORMATION FOR SEQ ID NO:2486:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 325 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2486:

1 TGAAGAGATG GAGGTCCAGT GAGGGCCAGG AGTTTGGCCC ACCCGTCTC TCCCATCCCC
 61 AGCCCTGGGT CTACCCTGGT AGAAAGACAT TTCTCTGGGA AAGGCTGCAG TAAATCTGAG
 121 CTTGGGGTTT TCAAGGTGAC ACCCGATCAA CGGAAACCCC CAACTGGCA GCCATGCACA
 181 CCCTCTTTAT CCGAGAGCAC AACCGGCTGG CCACCGAGCT GAGACGCTG AATCCCCGGT
 241 GGAATGGAGA CAACTGTAC AATGAGGCTC GGAAGATCAT GGGGGCCATG GTCCAGGTAA
 301 GGAGCTCTGC ATCCCAGCAT CCCC

(2) INFORMATION FOR SEQ ID NO:2487:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 464 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2487:

1 CTTTGTATCT CCACCCACCA ATAGTAAATT AATGTTGTCA CATTTGACGT GATGACAATA
 61 AAGAATATGT CTGAGCCACC CTTTGAAAAG GCAAGGGTAT GGTGAGTAG CCTCTGGGGA
 121 ATGTTCTCTC TGCTTCCCT TCCAGATCAT CACCTACCGA GACTTTCTGC CCCTGGTTCT
 181 GGGCAAGGCC CGGGCCAGGA GAACCTGGG GCACTACAGG GGGTACTGCT CCAATGTGGA
 241 CCCACGGGTG GCCAATGTCT TCACCCTGGC CTCCCGCTT GGCCACACAA TGCTCCAGCC
 301 CTTTCATGTC CGCTTGGACA GTCAGTACCG GGCTCCGCA CCCAACTCGC ATGTCCCCT
 361 TAGCTCTGCC TTCCTTGCCA GCTGGCGGAT CGTGATGAA GTGACCAGG TTTTCCAGGG
 421 GGCAATGGG GGTGAGGGTG GGGAGCATGC CCTCCCCTAG GTGG

(2) INFORMATION FOR SEQ ID NO:2488:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 410 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2488:

1 TCCAGCTGCT TCATGTCTCT CCAGAACTCT GTTCCTGAC AAACGTTACT AACATACCCG
 61 ACTGGCTTGT CCAGCTCTGG GCTAGCTTGG CATCATGTGA TAACCCAAGT AGCTTCCCAG
 121 AGGCTGGTCC AATCTGTGCT GCTCACATTC CCTGCCACCA GGGGGCATCG ACCCATCCT
 181 CCGGGGCTC ATGGCCACCC CTGCCAAGCT GAACCGTCAG GATGCCATGT TAGTGGATGA
 241 GCTCCGGGAC CGGCTGTTTC GGCAAGTGAG GAGGATTGGG CTGGACCTGG CAGCTCTCAA
 301 CATGCAACGA AGCCGGGACC ACGGCCTTCC AGGTGAGGGG GCTGTCCACC TCTTCTCCCA
 361 GCTTTGCTCG GGCCAGGCTG CTAAGGGGT TCTGGGAAGA CCCTGGTACC

(2) INFORMATION FOR SEQ ID NO:2489:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 437 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2489:

1 CGACTGCCTG GTAGTTCTG GTGGCAGAAA CGAGGTGTTT TCACCAAAAG ACAGCGCAAG
 61 GCCCTGAGCA GAATTCCTT GTCTCGAATT ATATGTGACA ATACCGGTAT CACCACGGTT
 121 TCAAGGGACA TCTTCAGAGC CAACATCTAC CCTCGGGGCT TTGTGAACTG CAGCCGTATC
 181 CCCAGGTTGA ACCTATCAGC CTGGCGAGGG ACATGAGGCT TCTGCAGGTA AGGGGAGGCC

241 ACCTCCAGCA CCCTGGGCTG GTTAAGCCTC ACATCCTTCC CTGGATGGAT GGCTGAGTCC
 301 TCTTAGGTCT CTAAGCAGAG AAAACAGAAC TTGTCACTAG GTACTCTTTC CAAGTGGCTT
 361 CCAATGTGC TAGTTTCTGG GCTGACAGTC AATCCAGGC CCTAGGACTT TGGGGGGAAA
 421 TTAGGAGCAT CCAACTA

(2) INFORMATION FOR SEQ ID NO:2490:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2558 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2490:

1 GAATTCCGTG GCCAGGACCC CTGCCAGGGC ACTGACCCAG CCTCCCCTGG GGCAGTGGAG
 61 ACCTCGGTCC TGCAGACTG CATAGCAGAG GCCAAGTTGC TGGTGGATGC TGCCCTACAAT
 121 TGGACCCAGA AGAGCATCAA GCAGCGGCTT CGCAGCGGTT CAGCCAGCCC CATGGACCTC
 181 CTGTCTACT TCAAACAACC GGTAGCAGCC ACCAGGACAG TTGTTCGGGC CGCAGATTAT
 241 ATGCATGTGG CTTTGGGGCT GCTGAAGAG AAGTTACAAC CCCAGCGGTC CGGACCCCTC
 301 ATTGTCACTG ATGTGCTAAC AGAACCACAG CTGCGGCTGC TGTCCCAGGC CAGTGGCTGT
 361 GCTCTCCGGG ACCAGGCCGA GCGCTGCAGC GACAAGTACC GCACCATCAC TGGACGGTGC
 421 AACACAAGA GGAGACCCTT GCTAGGGGCC TCCAACCAGG CTCTGGCTCG CTGGCTGCCC
 481 GCCGAGTATG AGGATGGGCT GTCGCTCCCC TTCGGCTGGA CCCCAGCAG GAGGCGCAAT
 541 GGCTTCCTTC TCCTCTTGT CCGGCTGTC TCCAACCAGA TTGTGCGCTT CCCCATGAG
 601 AGACTGACCT CCGACCGTGG CCGAGCCCTC ATGTTTATGC AGTGGGGCCA GTTCATTGAC
 661 CATGACCTGG ACTTCTCCCC GGAGTCCCCG GCCAGAGTGG CCTTCACTGC AGGCGTTGAC
 721 TGTGAGAGGA CTTGCGCCCA GTCGCCCCC TGCTTTCCCA TCAAGATCCC ACCCAATGAC
 781 CCCCAGCATCA AGAACCAGCG TGACTGCATC CCTTCTTCC GTCGGCACC CTCATGCCCC
 841 CAAAACAAGA ACAGAGTCCG CAACCAGATC AACGCGCTCA CCTCCTTGT GGACGCCAGC
 901 ATGGTGTATG GCAGTGAGGT CTCCCTCTCG CTGCGGCTCC GCAACCGGAC CAACTACCTG
 961 GGGCTGCTGG CCATCAACCA GCGCTTTCAA GACAACGGCC GGGCCCTGCT GCCCTTCGAC
 1021 AACCTGCACG ATGACCCCTG TCTCTCACC AACCGCTCGG CGCGCATCCC CTGCTTCCTG
 1081 GCAGGTGACA CCCGATCAAC GGAAACCCCC AAAGTGGCAG CCATGCACAC CCTCTTATG
 1141 CGAGAGCACA ACCGGCTGGC CACCGAGCTG AGACGCTGA ATCCCCGGTG GAATGGAGAC
 1201 AAAGTGTACA ATGAGGCTCG GAAGATCATG GGGGCCATGG TCCAGATCAT CACCTACCGA
 1261 GACTTTCTGC CCTGGTTCT GGGCAAGGCC CGGGCCAGGA GAACCCCTGGG GCACTACAGG
 1321 GGGTACTGCT CCAATGTGGA CCCACGGGTG GCCAATGTCT TCACCCTGGC CTTCCGCTTT
 1381 GGCCACACAA TGCTCCAGCC CTTTATGTTT CGCTTGACA GTCAGTACCG GGCCTCCGCA
 1441 CCAACTCGC ATGTCCCACT TAGCTCTGCC TTCTTTGCCA GCTGGCGGAT CGTGTATGAA
 1501 GGGGGCATCG ACCCCATCCT CCGGGGCCCTC ATGGCCACCC CTGCCAAGCT GAACCGTCAG
 1561 GATGCCATGT TAGTGGATGA GCTCCGGGAC CGGCTGTTTC GGCAAGTGAG GAGGATTGGG
 1621 CTGGACCTGG CAGCTCTCAA CATGCAACGA AGCCGGGACC ACGGCTTCC AGGGTACAAT
 1681 GCTTGGAGGC GCTTCTGTGG GCTCTCCAG CCCCGGAAT TGGCACAGCT TAGCCGGGTG
 1741 CTGAAAACC AGGACTTGGC AAGGAAGTTC CTGAATTTGT ATGGAACACC TGACAACAT
 1801 GACATCTGGA TTGGGGCCAT CGCTGAGCCT CTTTGGCCG GGGCTCGAGT GGGGCTCTT
 1861 CTGGCTTGTG TGTTTCGAGA CCAGTTCAGA AGAGCCGAGA CGGAGACAGG TTCTGGTGGC
 1921 AGAACGAGGT GTTTTCACCA AAGACAGCGC AAGGCCCTGA GCAGAATTTT CTTGTCTCGA
 1981 ATTATATGTG ACAATACCGG TATCACCAGG GTTCAAGGG ACATCTTCAG AGCCAACATC
 2041 TACCCTCGGG GCTTTGTGAA CTGCAGCCGT ATCCCCAGGT TGAACCTATC AGCCTGGCGA
 2101 GGGACATGAG GCTTCTGAC GAGTCTATCC CAAGTCTCCA ACTTTTGGAG ACAAGGGGAA
 2161 GGGGAGGACC ATGAGGCTGC CTTGTCTCCC TGGAGCAAGT GCAGGCTCGT GACGCTTCTG
 2221 CTGGCTACAG CTCAGAGCTG GGTCCCCCAG CCAGGAGTGA AGGCTGGGGG CTCCTATCAG
 2281 CAATGGACCT TCCGCCTTGG GAGCCTCTTA GGTATTAGG TATGAATCAG CGCCACGTGC
 2341 AAAGGCTTGG GAGCCAAGCC ATGTGGTCTT GCACCCAGG CAAGAAAAGT CAGCTGGAGG
 2401 GTTTACAGCA CTTTCTACTG TTTCCCAGCC CTCCTCCCC TCCCTCACC TGAATAAGAG
 2461 ACCACTCGGT CCTAGCCTCC AGACACCCCA CAATACTCCT CTGAGCCTGA GGCCAGGCAG
 2521 CATGCTCTGC TTCTACCAAT AAAGCACTGC CGGAATTC

(2) INFORMATION FOR SEQ ID NO:2491:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 807 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2491:

1 GCATTTTTC AAGTTTATG ATTTATTTAA CTTGTGGAAC AAAAATAAAC CAGAAACCAC
61 CACCTCTCAC GCCAAAGCTC ACACCTTCAG CCTCCAACAT GAAGGTCTCC GCAGCACTTC
121 TGTGGCTGCT GCTCATAGCA GCTGCCTTCA GCCCCCAGGG GCTCGCTGGG CCAGCTTCTG
181 TCCCAACCAC CTGCTGCTTT AACCTGGCCA ATAGGAAGAT ACCCCTTCAG CGACTAGAGA
241 GCTACAGGAG AATCACCAGT GGCAAATGTC CCCAGAAAGC TGTGATCTTC AAGACCAAAAC
301 TGGCCAAGGA TATCTGTGCC GACCCCAAGA AGAAGTGGGT GCAGGATTCC ATGAAGTATC
361 TGGACCAAAA ATCTCCAAC TCCAAAGCCAT AAATAATCAC CATTTTGTAA ACCAAACCAG
421 AGCCTGAGTG TTGCCTAATT TGTTCCTCCT TCTTACAATG CATTCTGAGG TAACCTCATT
481 ATCAGTCCAA AGGCATGGG TTTTATTATA TATATATATA TTTTTTTTTT AAAAAAAAC
541 GTATTGCATT TAATTATTG AGGCTTTAAA ACTTATCCTC CATGAATATC AGTTATTTTT
601 AAAGTGTAAG GCTTTGTGCA GATTCTTTAC CCCCTGGGAG CCCCAATTCTG ATCCCCTGTC
661 ACGTGTGGGC AATGTTCCCT CTCTCCTCTC TTCCTCCCTG GAATCTTGTA AAGGTCCTGG
721 CAAAGATGAT CAGTATGAAA ATGTCATTGT TCTTGGAAC CCAAAGTGTG ACTCATTAAG
781 TGAAGTAAA TGTGTTTTTA GGAATAC

(2) INFORMATION FOR SEQ ID NO:2492:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 294 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2492:

1 ATGAAGGTCT CCGCAGCACT TCTGTGGCTG CTGCTCATAG CAGCTGCCTT CAGCCCCCAG
61 GGGCTCGCTG GGCAGCTTC TGTCCCAACC ACCTGCTGCT TTAACCTGGC CAATAGGAAG
121 ATACCCCTTC AGCGACTAGA GAGCTACAGG AGAATCACCA GTGGCAAATG TCCCCAGAAA
181 GCTGTGATCT TCAAGACCAA ACTGGCCAAG GATATCTGTG CCGACCCCAA GAAGAAGTGG
241 GTGCAGGATT CCATGAAGTA TCTGGACCAA AAATCTCCAA CTCCAAAGCC ATAA

(2) INFORMATION FOR SEQ ID NO:2493:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2655 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2493:

1 CCACATATTC CCTCCTTTT CCAAGGCAAG ATCCAGATGG ATTAAAAAAT GTACCAAGTC
61 CCTCCTACTA GCTTGCTCTT CTTCTGTTCT GCTTGACTTC CTAGGATCTG GAATCTGGTC
121 AGCAATCAGG AATCCCTTCA TCGTGACCCC CGCATGGGCA AAGGCTTCCC TGGAATCTCC
181 CACACTGTCT GCTCCCTATA AAAGGCAGGC AGATGGGCCA GAGGAGCAGA GAGGCTGAGA
241 CCAACCCAGA AACCACCACC TCTCAGCCA AAGCTCACAC CTTCAGCCTC CAACATGAAG
301 GTCTCCGCAG CACTTCTGTG GCTGCTGCTC ATAGCAGCTG CCTTCAGCCC CCAGGGGCTC
361 GCTGGGCCAG TAAAGCCCC CAACTCCTTA CAGGAAAGGT AAGGTAACCA CCTCCAGCT
421 ACTAGGTCAG CAAGAATCTT TACAGACTCA CTGCAAATTC TCCATTTGAA AAATAGGGAA
481 ACAGGTTTTG TGGGTGGACA AGAAATGCCT CAACCGTCAC ATCCAGTCAC TGGAAGAGCC
541 AGAACTAGAA AGCTCCCGAG TCTTTTCCCC ACATTCAAGA GGGCCGCTGG GTGCATCCTT
601 ACCCAGCTAT CCTTACAGTG TTTGGGAATG GGAATGGCT CTGTCTTACT GTGGGCATGG
661 TGGGCATTTT TGGCAGTGGG AGAGAAGGAA AATCTGTTGA TTAGAAGCTC AGTATGTTAA
721 TTCGACTCCA GGACAGCTTT CAGAGACAGT GGCTAAGAGA AGAACGAGGT CCCAGGGGAT
781 CTCTTGAGGT GACTTATTTT GACACTCTTT GGGAAAGTTA TCTAGGAGAT TTGTCCATA
841 ACTCATTTTC CCATACTCTG GTGACAAATT TACTGAGTGT ATCGGTCCCA CTGAGCCAGT
901 GCATAGCATG GTAACAAACA GTTCTAAATT ATCAATGACT TAACAGAATT AACTAAATTA
961 AAAAAAGTTA CTTTCTCACT TGTACTAAAT ATCTATAATG TATGGGCTCA GGCTTCTGCA
1021 TTTTATACTC AGGATTCTAG ACTGATGGAG AAGTTGCCAT GTGGGGGAAC ATTGATGGAT
1081 ACTGTGATAA AGCAGAAGAA AGCTCTCAGG AGTCTGTCAT AGGCAATGCA CTGTGGCTCA
1141 AAAATGACAC CCATCACTTT GTCTCCTTCT TTATTGATCA AAATAATTA ATGCCTCCAA
1201 CCAAAACAAA GTGGCCAAGA AATGCAAGTC TACCTTGTTG CTCAAAACAG AGGATGGAGA
1261 ATATTGTTGT AAAATTACCA TGACCATCAC ATGGCCACGT AGGCTTTTAT AATGACAGAG
1321 CTAGCATTTG TCACATTGAC CAAGCTTTGT CCATACACTC TACAGTAATG ATGAGTCCTC
1381 AGTGCACAGG GGAGGATGCT GAAGACACAG GACAGCATCC TCCAGACACA TAAGACTTCA
1441 GAGCAGAGGG ATTCTCCCTC CACCTCTCGC AATTCCTTGC TTTCTCCTAA CTTCTTTTAC
1501 AAAGTCATGC TTGGAAATGT CTATGTATCA TCATGTGGCT CATTTTTTTC TCTGTTCAAT
1561 TTTTTCCTCC AAAATTCAGC TTCTGTCCCA ACCACCTGCT GCTTTAACCT GGCCAATAGG
1621 AAGATACCCC TTCAGCGACT AGAGAGCTAC AGGAGAATCA CCAGTGGCAA ATGTCCTCCAG

1681 AAAGCTGTGA TGTAAGTAAA TAAAGTTCAC CCTCCCCTAG ACAAAAAAAT AATGTCTAGG
1741 GCACAGAGTC AAGAACTGTG GGAGTCATAG ACTCTGATAG TTTGACCTCT ATGGTCCAAT
1801 TCATTAATTT TCACAAGTGA GTGTCTACTC CCAGCTCCCT GCCTGGGAGA TTGCTGTAGT
1861 CATATCAATT TCTTCAAGTC AAGAGCAAAG ATGTTTTTAC TGGGCCTTTA AGAGCAGCAA
1921 CTAAACCAAG AGTCTCATCC TTCCTCCTCT CCGTAGCAAC CCTTTGTCCA GGGGCAGATG
1981 GTCCTTAAAT ATTTAGGGTC AAATGGGCAG AATTTTCAAA AACAATCCTT CCAATTGCAT
2041 CCTGATTCTC CCCACAGCTT CAAGACCAAA CTGGCCAAGG ATATCTGTGC CGACCCCAAG
2101 AAGAAGTGGG TGCAGGATTC CATGAAGTAT CTGGACCAAA AATCTCCAAC TCCAAAGCCA
2161 TAAATAATCA CCATTTTTGA AACCAAACCA GAGCTGAGT GTTGCTAAT TTGTTTCCC
2221 TTCTTACAAT GCATCTGAG GTAACCTCAT TATCAGTCCA AAGGGCATGG GTTTTATTAT
2281 ATATATATAT ATATATTTTT TTTAAAAAA AAACGTATTG CATTTAATTT ATTGAGGCTT
2341 TAAAACTTAT CCTCCATGAA TATCAGTTAT TTTTAAACTG TAAAGCTTTG TGCAGATTCT
2401 TTACCCCTCG GGAGCCCCAA TTCGATCCCC TGTACGCTGT GGGCAATGTT CCCCTCTCC
2461 TCCTTCTCTC CCTGGAATCT TGTAAGGTC CTGGCAAAGA TGATCAGTAT GAAATGTCA
2521 TTGTTCTTGT GAACCCAAAG TGTGACTCAT TAAATGGAAG TAATGTTGTT TTAGGAATAC
2581 ATAAAGTATG TGCATATTTT ATTATAGTCA CTAGTTGTAA TTTTTTGTG GAAATCCAC
2641 ACTGAGCTGA GGGGG

(2) INFORMATION FOR SEQ ID NO:2494:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2665 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2494:

1 GCATTTTTTC AAGTTTTATG ATTTATTTAA CTTGTGGAAC AAAAATAAAC CAGAAACCAC
61 CACCTCTCAC GCCAAAGCTC ACACCTTCAG CCTCCAACAT GAAGGTCTCC GCAGCACTTC
121 TGTGGCTGCT GCTCATAGCA GCTGCCTTCA GCGCCAGGG GCTCGCTGGG CCAGCTTCTG
181 TCCCAACCAC CTGTGCTTT AACCTGGCCA ATAGGAAGAT ACCCCTTCAG CGACTAGAGA
241 GCTACAGGAG AATCACCAGT GGCAAAATGTC CCCAGAAAGC TGTGATCTTC AAGACCAAAC
301 TGGCCAAGGA TATCTGTGCC GACCCCAAGA AGAAGTGGGT GCAGGATTCC ATGAAGTATC
361 TGGACCAAAA ATCTCCAAC CCAAAGCCAT AAATAATCAC CATTTTGTAA ACCAAACCAG
421 AGCCTGAGTG TTGCCTAATT TGTTTTCCCT TCTTACAATG CATTCTGAGG TAACCTCATT
481 ATCAGTCCAA AGGGCATGGG TTTTATTATA TATATATATA TTTTTTTTTT AAAAAAAAC
541 GTATTGCATT TAATTTATTG AGGCTTTAAA ACTTATCCTC CATGAATATC AGTTATTTTT
601 AAAGTGTAAA GCTTTGTGCA GATTCTTTAC CCCTGGGAG CCCCAATTCT ATCCCTGTCT
661 ACGTGTGGGC AATGTTCCCC CTCTCCTCTC TTCTCCTG GAATCTTGTA AAGGTCCTGG
721 CAAAGATGAT CAGTATGAAA ATGTCATTGT TCTGTGAAC CCAAAGTGTG ACTCATTAAA
781 TGGAAATAAA TGTGTTTTA GGAATACATG AAGGTCT CCGCAGCACT TCTGTGGCTG
801 CTGCTCATAG CAGCTGCCTT CAGCCCCCAG GGGCTCGCTG GGCCAGCTTC TGTCCCAACC
861 ACCTGCTGCT TTAACCTGGC CAATAGGAAG ATACCCCTTC AGCGACTAGA GAGCTACAGG
921 AGAATCACCA GTGGCAAATG TCCCCAGAAA GCTGTGATCT TCAAGACCAA ACTGGCCAAG
981 GATATCTGTG CCGACCCCAA GAAGAAGTGG GTGCAGGATT CCATGAAGTA TCTGGACCAA
1005 AAATCTCCAA CTCCAAAGCC ATAA
1065 CCACATATTC CCTCCTTTT CCAAGGCAAG ATCCAGATGG ATTAAAAAAT GTACCAAGTC
1121 CCTCCTACTA GCTTGCCCTT CTTCTGTTCT GCTTGACTTC CTAGGATCTG GAATCTGGTC
1181 AGCAATCAGG AATCCCTTCA TCGTGACCCC CGCATGGGCA AAGGCTTCCC TGGAACTCTC
1241 CACACTGTCT GCTCCCTATA AAAGGCAGGC AGATGGGCA GAGGAGCAGA GAGGCTGAGA
1301 CCAACCCAGA AACCAACCAC TCTACGCCA AAGCTCACAC CTTACGCTC CAACATGAAG
1361 GTCTCCGCAG CACTTCTGTG GCTGCTGCTC ATAGCAGCTG CCTTCAGCCC CCAGGGGCTC
1421 GCTGGGCCAG GTAAGCCCC CAACTCCTTA CAGGAAAGGT AAGGTAACCA CCTCCAGGCT
1481 ACTAGGTCAG CAAGAATCTT TACAGACTCA CTGCAAATTC TCCATTTGAA AAATAGGGAA
1541 ACAGGTTTTG TGGGTGGACA AGAAATGCCT CAACCGTCAC ATCCAGTCAC TGGAAAGGCC
1601 AGAACTAGAA AGCTCCCGAG TCTTTTCCCC ACATTCAAGA GGGCCGCTGG GTGCATCCTT
1661 ACCAGCTAT CTTACAGTG TTTGGGAATG GGAATGGCT CTGTCTTACT GTGGGCATGG
1721 TGGGCATTTT TGGCAGTGGG AGAGAAGGAA AATCTGTTGA TTAGAAGCTC AGTATGTTAA
1781 TTCGACTCCA GGCAGCTTT CAGAGACAGT GGCTAAGAGA AGAACGAGGT CCCAGGGGAT
1841 CTCTTGAGGT GACTTATTTT GACACTCTT GGGAAAGTGA TCTAGGAGAT TTGTTCCTATA
1901 ACTCATTTTC CCATACTCTG GTGACAAATT TACTGAGTGT ATCGGTCCCA CTGAGCCAGT
1961 GCATAGCATG GTAACAAACA GTTCTAAATT ATCAATGACT TAACAGAATT AACTAAATTA
2021 ACAAAGTTA CTTTCTCACT TGTACTAAAT ATCTATAATG TATGGGCTCA GGCTTCTGCA
2081 TTTTATACTC AGGATTCTAG ACTGATGGAG AAGTTGCCAT GTGGGGGAAC ATTGATGGAT

2141 ACTGTGATAA AGCAGAAGAA AGCTCTCAGG AGTCTTGCAT AGGCAATGCA CTGTGGCTCA
 2201 AAAATGACAC CCATCACTTT GTCTCCTTCT TTATTGATCA AAAC TAATTA ATGCC TCCAA
 2261 CCAAACAAAA GTGGCCAAGA AATGCAAGTC TACCTTGTGT CTCAAAACAG AGGATGGAGA
 2321 ATATTTGTGT AAAATTACCA TGACCATCAC ATGGCCACGT AGGTCTTTAT AATGACAGAG
 2381 CTAGCATTTG TCACATTGAC CAAGCTTTGT CCATACACTC TACAGTAATG ATGAGTCCTC
 2441 AGTGCACAGG GGAGGATGCT GAAGACACAG GACAGCATCC TCCAGACACA TAAGACTTCA
 2501 GAGCAGAGGG ATTCTCCCTC CACCTCTCGC AATTCTTTGC TTTCTCCTAA CTTCTTTTAC
 2561 AAAGTCATGC TTGGAATGT CTATGTATCA TCATGTGGCT CATT TTTTTC TCTGTTCATT
 2621 TTTTTCCTCC AAAATT CAGC TTCTGTCCCA ACCACCTGCT GCTTTAACCT GGCCAATAGG
 2681 AAGATACCCC TTCAGCGACT AGAGAGCTAC AGGAGAATCA CCAGTGGCAA ATGTCCCCAG
 2741 AAAGCTGTGA TGTAAAGTAA TAAAGTTCAC CCTCCCTAG ACAAAAAAAT AATGTCTAGG
 2801 GCACAGAGTC AAGAAGTGTG GGAGTCATAG ACTCTGATAG TTTGACCTCT ATGGTCCAAT
 2861 TCATTAATTT TCACAAGTGA GTGTCTACTC CCAGCTCCCT GCCTGGGAGA TTGCTGTAGT
 2921 CATATCAATT TCTTCAAGTC AAGAGCAAAG ATGGTTTTAC TGGGCCTTTA AGAGCAGCAA
 2981 CTAACCCAAG AGTCTCATCC TTCCTCCTCT CCGTAGCAAC CTTTGTGCCA GGGGCAGATG
 3041 GTCCTTAAAT ATTTAGGGTC AAATGGGCAG AATTTTCAAA AACAATCCTT CCAATTGCTAG
 3101 CCTGATTCTC CCCACAGCTT CAAGACCAAA CTGGCCAAGG ATATCTGTGC CGACCCCAAG
 3161 AAGAAGTGGG TGCAGGATTC CATGAAGTAT CTGGACCAAA AATCTCCAAC TCCAAAGCCA
 3221 TAAATAATCA CCATTTTTGA AACCAAACCA GAGCCTGAGT GTTGCTAAT TTGTTTCCC
 3281 TTCTTACAAT GCATTCTGAG GTAACCTCAT TATCAGTCCA AAGGGCATGG GTTTTATTAT
 3341 ATATATATAT ATATATTTTT TTTTAAAAAA AAACGTATTG CATTTAATTT ATTGAGCTT
 2341 TAAAACTTAT CTCCATGAA TATCAGTTAT TTTTAAACTG TAAAGCTTTG TGCAGATTCT
 2401 TTACCCCTTG GGAGCCCCAA TTCGATCCCC TGTCACGTGT GGGCAATGTT CCCCCTCTCC
 2461 TCTCTTCCTC CCTGGAATCT TGTAAGGTC CTGGCAAAGA TGATCAGTAT GAAAAATGTC
 2521 TTGTTCTTGT GAACCCAAAG TGTGACTCAT TAAATGGAAG TAATGTTGTT TTAGGAATAC
 2581 ATAAAGTATG TGCATATTTT ATTATAGTCA CTAGTTGTAA TTTT TTTTGTG GGAAATCCAC
 2641 ACTGAGCTGA GGGGG

(2) INFORMATION FOR SEQ ID NO:2495:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 70 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2495:

1 GCCAGGTCGC TGTTGGTCCA CGCCGCCCGT CGCGCCGCC GCGGCTCAG CGTCCGCCG
 61 CGCCATGGGA

(2) INFORMATION FOR SEQ ID NO:2496:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 880 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2496:

1 GGCCGGAGCC GAGCCGGGGT CGGGCAGCAG CAGGGACCCC CCAGAGGCGG GGCCTGTGGG
 61 ACCGCTATGG GCGTGGAGAT CGAGACCATC TCCCCCGGAG ACGGAAGGAC ATTCCCCAAG
 121 AAGGGCCAAA CGTGTGTGGT GCACTACACA GGAATGCTCC AAAATGGGAA GAAGTTTGAT
 181 TCATCCAGAG ACAGAAACAA ACCTTTCAAG TTCAGAATTG GCAAACAGGA AGTCATCAAA
 241 GGTTTGAAG AGGGTGCAGC CCAGATGAGC TTGGGGCAGA GGGCGAAGCT GACCTGCACC
 301 CCTGATGTGG CATATGGAGC CACGGGCCAC CCCGGTGTCA TCCCTCCCAA TGCCACCCTC
 361 ATCTTTGACG TGGAGCTGCT CAACTTAGAG TGAAGGCAGG AAGGAACCTA AGGTGGCTGG
 421 AGATGGCTGC TGCTCACCTT CCTAGCCTGC TCTGCCACTG GGACGGCTCC TGCTTTTGGG
 481 GCTCTTGATC AGTGTGCTAA CCTCACTGCC TCATGGCATC ATCCATTCTC TCTGCCAAG
 541 TTGCTCTGTA TGTGTTCTGC AGTGTTCTAT CGAATCTTGT CTTGAGGAAA CTTCCGGTTGC
 601 AGATTGAAGC ATTT CAGGTT GTGCATTTTG TGTGATGCAT GTAGTAGCCT TTCCTGATGA
 661 CAGAACACAG ATCTCTTGTT CGCACAACTC AACTGCGCTT ACCTTCACTT AAACACACA
 721 CACAAGGTGC TCAGACATGA AATGTACATG GCGTACCGTA CACAGAGGGA CTTGAGCCAG
 781 TTACCTTTGC TGTCACTTTC TCTCTTATAA ATTCTGTTAG CTGCTCACTT AAACAATGTC
 841 CTCTTTGAGA AAATGTAAAA TAAAGGCTCT GTGCTTGACA

(2) INFORMATION FOR SEQ ID NO:2497:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1532 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2497:

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1 GAATTCGGGC CGCCGCCAGG TCGCTGTTGG TCCACGCCGC CCGTCGCGCC GCCCGCCCGC
61 TCAGCGTCCG CGCCGCCCAT GGGAGTGCAG GTGGAAACCA TCTCCCCAGG AGACGGGCGC
121 ACCTTCCCCA AGCGCGGCCA GACCTGCGTG GTGCACTACA CCGGGATGCT TGAAGATGGA
181 AAGAAATTTG ATTCTCTCCG GGACAGAAAC AAGCCCTTTA AGTTTATGCT AGGCAAGCAG
241 GAGGTGATCC GAGGCTGGGA AGAAGGGGTT GCCCAGATGA GTGTGGGTCA GAGAGCCAAA
301 CTGACTATAT CTCCAGATTA TGCCTATGGT GCCACTGGGC ACCCAGGCAT CATCCACCA
361 CATGCCACTC TCGTCTTCGA TGTGGAGCTT CTAAACTGGA AATGACAGGA ATGGCCTCCT
421 CCCTTAGCTC CCGTGTCTTG GATCTGCCAT GGAGGGATCT GGTGCCTCCA GACATGTGCA
481 CATGAGTCCA TATGGAGCTT TTCCTGATGT TCCACTCCAC TTTGTATAGA CATCTGCCCT
541 GACTGAATGT GTTCTGTCAC TCAGCTTTGC TTCCGACACC TCTGTTTCCT CTTCCCTTT
601 CTCCTCGTAT GTGTGTTTAC CTAAACTATA TGCCATAAAC CTCAAGTTAT TCATTTTATT
661 TTGTTTTTCAT TTTGGGGTGA AGATTCAGTT TCAGTCTTTT GGATATAGGT TTCCAATTAA
721 GTACATGGTC AAGTATTAAAC AGCACAAGTG GTAGGTAAAC ATTAGAATAG GAATTGGTGT
781 TGGGGGGGGG GTTTGCAAGA ATATTTTATT TTAATTTTTT GGATGAAAT TTTATCTATT
841 ATATATTAAA CATCTTGCT GCTGCGCTGC AAAGCCATAG CAGATTTGAG GCGCTGTTGA
901 GGAAGAATT ACTCTCCAAG TTGAGAGATG TCTTTGGGTT AAATTAAG CCCTACCTAA
961 AACTGAGGTG GGGATGGGGA GAGCCTTTGC CTCCACCATT CCCACCACC CTCCCTTAA
1021 ACCCTCTGCC TTTGAAAGTA GATCATGTTT ACTGCAATGC TGGACACTAC AGGTATCTGT
1081 CCCTGGGCCA GCAGGGACCT CTGAAGCCTT CTTTGTGGCC TTTTTTTTTT TTCATCCTGT
1141 GGTTTTCTTA ATGGAATTTT AGGAATTTTG TAATCTCATA ACTTTCCAAG CTCCACCATT
1201 TCCTAAATCT TAAGAATTTT AATTGACAGT TTCAATTGAA GGTGCTGTTT GTAGACTTAA
1261 CACCCAGTGA AAGCCAGGCC ATCATGACAA ATCCTTGAAT GTTCTCTTAA GAAAATGATG
1321 CTGGTCATCG CAGCTTCAGC ATCTCCTGTT TTTTGATGCT TGGCTCCCTC TGCTGATCTC
1381 AGTTTCCTGG CTTTCTCTCC CTCAGCCCTT TCTACCCCTT TTGCTGTCCT GTGTAGTGAT
1441 TTGGTGAGAA ATCGTTGCTG CACCCTTCCC CCAGCACCAT TTATGAGTCT CAAGTTTTAT
1501 TATTGCAATA AAAGTGCTTT ATGCCGAAT TC
  
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(2) INFORMATION FOR SEQ ID NO:2498:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 584 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2498:

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1 GCCGCCGCCA TGGGAGTGCA GGTGGAAACC ATCTCCCCAG GAGACGGGCG CACCTTCCCC
61 AAGCGCGGCC AGACCTGCGT GGTGCACTAC ACCGGGATGC TTGAAGATGG AAAGAAATTT
121 GATTCTCTCC GGGACAGAAA CAAGCCCTTT AAGTTTATGC TAGGCAAGCA GGAGGTGATC
181 CGAGGCTGGG AAGAAGGGGT TGCCAGATG AGTGTGGGTC AGAGAGCCAA ACTGACTATA
241 TCTCCAGATT ATGCCTATGG TGCCACTGGG CACCCAGGCA TCATCCCACC ACATGCCACT
301 CTCGTCTTCG ATGTGGAGCT TCTAAACTG GAATGACAGG AATGGCCTCC TCCCTTAGCT
361 CCCTGTTCTT GGATCTGCCR TGGAGGGATC TGGTGCCTCC AGACATGTGC ACATGARTCC
421 ATATGGAGCT TTTCTGATG TTCCACTCCA CTTGTATAG ACATCTGCCC TGACTGAATG
481 TGTCTGTGCA CTCAGCTTTG CTTCCGACAC CTCTGTTTCC TCTTCCCTT TCTCTCGTA
541 TGTGTGTTTA CCTAAACTAT ATGCCATAAA CCTCAAGTTA TTCA
  
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(2) INFORMATION FOR SEQ ID NO:2499:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3176 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2499:

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1 GCCAGGTGCG TGTTGGTCCA CGCCGCCCGT CGCGCCGCCG GCCCGCTCAG CGTCCGCCCG
61 CGCCATGGGA GGCCGGAGCC GAGCCGGGGT CGGGCAGCAG CAGGGACCCC CCAGAGGCGG
121 GGCCGTGTTG ACCGCTATGG GCGTGGAGAT CGAGACCATC TCCCCCGGAG ACGGAAGGAC
181 ATTCCCCAAG AAGGGCCAAA CGTGTGTGGT GCACTACACA GGAATGCTCC AAAATGGGAA
241 GAAGTTTGAT TCATCCAGAG ACAGAAACAA ACCTTTCAAG TTCAGAATTG GCAAACAGGA
301 AGTCATCAAA GGTTTTGAAG AGGGTGCAGC CCAGATGAGC TTGGGGCAGA GGGCGAAGCT
  
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361 GACCTGCACC CCTGATGTGG CATATGGAGC CACGGGCCAC CCCGGTGTCA TCCCTCCCAA
421 TGCCACCCTC ATCTTTGACG TGGAGCTGCT CAACCTAGAG TGAAGGCAGG AAGGAACTCA
481 AGGTGGCTGG AGATGGCTGC TGCTCACCCT CCTAGCCTGC TCTGCCACTG GGACGGCTCC
541 TGCTTTTGGG GCTCTTGATC AGTGTGCTAA CCTCACTGCC TCATGGCATC ATCCATTCTC
601 TCTGCCCAAG TTGCTCTGTA TGTGTTCGTC AGTGTTCATG CGAATTCTTG CTTGAGGAAA
661 CTTCCGGTTGC AGATTGAAGC ATTTTCAGTT GTGCATTTTG TGTGATGCAT GTAGTAGCCT
721 TTCCTGATGA CAGAACACAG ATCTCTTGTT CGCACAACTC ACACCTGCCTT ACCTTCACTT
781 AAACCACACA CACAAGGTGC TCAGACATGA AATGTACATG GCGTACCGTA CACAGAGGGA
841 CTTGAGCCAG TTACCTTTGC TGCTACTTTC TCTCTATAA ATTCTGTTAG CTGCTCACAT
901 AAACAATGTC CTCTTTGAGA AAATGTAAAA TAAAGGCTCT GTGCTTGACA GAATTCGGGC
961 CGCCGCCAGG TCGCTGTTGG TCCACGCCGC CCGTCGCGCC GCCCGCCGC
1011 TCAGCGTCCG CCGCCGCCAT GGGAGTGCAG GTGGAACCA TCTCCCCAGG AGACGGGCGC
1171 ACCTTCCCCA AGCGCGGCCA GACCTGCGTG GTGCACTACA CCGGGATGCT TGAAGATGGA
1231 AAGAAATTTG ATTCCCTCCG GGACAGAAAC AAGCCCTTTA AGTTTATGCT AGGCAAGCAG
1291 GAGGTGATCC GAGGCTGGGA AGAAGGGGTT GCCCAGATGA GTGTGGGTCA GAGAGCCAAA
1351 CTGACTATAT TCCAGATTA TGCCTATGGT GCCACTGGGC ACCCAGGCAT CATCCCACCA
1411 CATGCCACTC TCGTCTTCGA TGTGGAGCTT CTAAACTGGA AATGACAGGA ATGGCCTCCT
1471 CCCTTAGCTC CCTGTTCTTG GATCTGCCAT GGAGGGATCT GGTGCCTCCA GACATGTGCA
1531 CATGAGTCCA TATGGAGCTT TPCCTGATGT TCCACTCCAC TTTGTATAGA CATCTGCCCT
1591 GACTGAATGT GTTCTGTCAC TCAGCTTTGC TTCCGACACC TCTGTTTCCT CTTCCCTTTT
1651 CTCTCTGATG GTGTGTTTAC CTAAACTATA TGCCATAAAC CTCAAGTTAT TCATTTTATT
1711 TGTGTTTCAT TTTGGGGTGA AGATTCAGTT TCAGTCTTTT GGATATAGGT TTCCAATTAA
1771 GTACATGGTC AAGTATTAAC AGCACAAAGT GTAGGTAAAC ATTAGAATAG GAATTGGTGT
1831 TGGGGGGGGG GTTTGCAAGA ATATTTTATT TTAATTTTTT GGATGAAATT TTTATCTATT
1891 ATATATTAAA CATTCCTGCT GCTGCGCTGC AAAGCCATAG CAGATTTGAG GCGCTGTGTA
1951 GGAAGTGAAT ACTCTCCAAG TTGAGAGATG TCTTTGGGTT AAATTAAGAAG CCCTACCTAA
2011 AACTGAGGTG GGGATGGGGA GAGCCTTTGC CTCCACCATT CCCACCCACC CTCCCTTAA
2071 ACCCTCTGCC TTTGAAAGTA GATCATGTTT ACTGCAATGC TGGACACTAC AGGTATCTGT
2131 CCCTGGGCCA GCAGGGACCT CTGAAGCCTT CTTTGTGGCC TTTTTTTTTT TTCATCCTGT
2191 GGTTTTTCTA ATGGACTTTC AGGAATTTTG TAATCTCATA ACTTTCCAAG CTCCACCCT
2251 TCCTAAATCT TAAGAACTTT AATTGACAGT TTCAATTGAA GGTGCTGTTT GTAGACTTAA
2331 CACCCAGTGA AAGCCCAGCC ATCATGACAA ATCCTTGAAT GTTCTCTTAA GAAAATGATG
2391 CTGGTTCATC CAGCTTCAGC ATCTCCTGTT TTTTGATGCT TGGCTCCCTC TGCTGATCTC
2451 AGTTTCTCTG CTTTCTCTCC CTCAGCCCTT TCTACCCCTT TTGCTGTCTT GTGTAGTGAT
2511 TTGGTGAGAA ATCGTTGCTG CACCCTTCCC CCAGCACCAT TTATGAGTCT CAAGTTTTAT
2561 TATTGCAATA AAAGTGCTTT ATGCCGAAT TC
2594 GCGCCGCCA TGGGAGTGCA GGTGGAACCC ATCTCCCCAG GAGACGGGCG CACCTTCCCC
2655 AAGCGCGGCC AGACCTGCGT GGTGCACTAC ACCGGGATGC TTGAAGATGG AAAGAAATTT
2715 GATTCTCTCC GGGACAGAAA CAAGCCCTTT AAGTTTATGC TAGGCAAGCA GGAGGTGATC
2775 CGAGGCTGGG AAGAAGGGGT TGCCCAGATG AGTGTGGGTC AGAGAGCCAA ACTGACTATA
2835 TCTCCAGATT ATGCTTATGG TGCCACTGGG CACCCAGGCA TCATCCACC ACATGCCACT
2895 CTCGTCTTCG ATGTGGAGCT TCTAAACTG GAATGACAGG AATGGCCTCC TCCCTTAGCT
2955 CCCTGTTCTT GGATCTGCCR TGGAGGGATC TGGTGCCTCC AGACATGTGC ACATGARTCC
3015 ATATGGAGCT TTTCTGATG TTCCACTCCA CTTTGTATAG ACATCTGCCC TGACTGAATG
3075 TGTCTGTGCA CTCAGCTTTG CTTCCGACAC CTCTGTTTCC TCTTCCCTT TCTCCTCGTA
3135 TGTGTGTTA CCTAACTAT ATGCCATAAA CCTCAAGTTA TTCA

(2) INFORMATION FOR SEQ ID NO:2500:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 693 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2500:

1 AACAAAGAAA GCGTTGTTAG CTCTGGTGAA TCCCAAAGA ATGTGGCAGT TGCTAGCCAT
61 GCTCCTGAAT ATGTATAAAC AGTACATCAT ATGACTAAGA GTTTGACTTA GGGGTTAGAT
121 TTTATGTGTT TGAACCCCAA ATTAGTTATT TAATAGTTGG CACCCAAAA CAAGTTACTT
181 AACCTCACTA AGGTTTCAGTT TTCCTGTTTA TAAAATGTAG ATAGTGATAG TATGTACTTT
241 ATAGGATATAT TGTGAAAAAT AAATGAAATA TCAGATTTAT TTAGGATAAC ACCTGGCATA
301 TGTTTGGTAT TCAGAATTAG TTGCTGCTGT TTTATTCTGC TCTCCCTTGC ATCCCACTTT
361 TCTAAGTTGT AAATAAATA GTTGTACACA GATTGACAGA TTAAGAAAGG CTTGTGATTG
421 TGCTAGACCT ATGCCTATGC CTCTGTCTCA CCAGATTCCA GGTGTATATG TGGAGGTGGG
481 ATAGGGAGTG GAGTAAGTGG GTAAATATTA AATTGCCAGG TTGGGCACCA TCCTGAATAT

541 TATCTCTAAA GAAAGAAGCA AAACCAGGCA CAGCTGATGG GTTAACCAGA TATGATACAG
 601 AAAACATPCT CTTCTGCTTT TTGGTTTTAA GCCTATATTT GAAGCCTTAG ATCTCTCCAG
 661 CACAGTAAGC ACCAGGAGTC CATGAAGAAG ATG

(2) INFORMATION FOR SEQ ID NO:2501:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7659 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2501:

1 GATCTTCATG TGAATGACT GGTTCATT C AATAGACTTA ATTACAGCAGT CTGTGGGGAA
 61 GAGCAAGGTA TGATAGAATG GTTCCTCAAG TGCTTCAGAT GTGAAGTGGG TTAAATATA
 121 CTGTCCCTGT CTTCTTCAGA GTTTTGGTAA AGATAAAATA GGACACTCAT TTTAAAGCAA
 181 TCTTTGCAAA TGACAAGCCA CTATAGACAT TAATAGAGTT TTTATTTCCA GTATTATCAT
 241 TAATATCAGA TCCTGGAAGA AGGTTGAGCC TTGACCTAGA GCAAAAAAAC AGAAGAATTA
 301 GTAAAGGAAT CCTGGAGAAA GCCCTGCTG TGTATTTAAA GGAGAAAGGG AGATCATGTT
 361 GGGAAATTAT AATATTAAAA GTAAACAAAA GCTAGGAAGT AAAATAAAAT AAATTATATG
 421 GCCTAGATCC CCATAAGTAA TGGTTTAACT TCTGCCTTCC TGTGTTCTGA GCCAGATTAG
 481 GGCACAGTAG AGAAAGAGGA GTCTCTGAAA ATGTTTCCAA TTTGCTGCT CAGACAGCGG
 541 ATCATCAGTG AATCAGATGA AAATTTGTGG ATTTATGCAC TAACTGATCA GCAGGAAATT
 601 AAACAAGAAA AGCGTTGGTA GCTCTGGTGA ATCCCAAAAG AATTTGGCAG TTGCTAGCCA
 661 TGCTCCTGAA TATGTATAAA CAGTACATCA TATGACTAAG AGTTTGACTT AGGGGTTAGA
 721 TTTTATGTGT TTGAACCCCA AATTAGTTAT TTAATAGTTG GCACCCCAAA ACAAGTTACT
 781 TAACCTCACT AAGATTCACT TTTCCTGTTT ATAAAATGTA GATAGTGATA GTATGTACTT
 841 TATAGGATTA TTGTGAAAAA TAAATGAAAT ATCAGATTTA TTTAGGATAA CACCTGGCAT
 901 ATGTTTGGTA TCCAGTAATT AGTTGCTGCT GTTTTATTCT GCTCTCCCTT GCATCCCACT
 961 TTTCTAAGTT GTAAACTAAA TAGTTGTACA CAGATTGACA GATTAAGAAA GGCTTGTGAT
 1021 TGTGCTAGAC CTATGCCTCT CTCTACCAG ATTCCAGGTG TATATGTGGA GGTGGGATAG
 1081 GAGGTGGAGT AAGTGGGTAA ATATTAAATT GCCCAGTTGG GCACCATCCT GAATATTATC
 1141 TCTAAAGAAA GAAGCAAAAC CAGGCACAGC TGATGGGTGA ACCAGATATG ATACAGAAAA
 1201 CATTTCCCTC TGCTTTTGGG TTTTAAGCCT ATATTTGAAG CCTTAGATCT CTCCAGCACA
 1261 GTAAGCACCA GGAGTCCATG AAGAAGATGG CTCCTGCCAT GGAATCCCCT ACTCTACTGT
 1321 GTGTAGCCTT ACTGTTCTTC GGTAAGTAGA GATTCAATTA CCCCTCCCAG GGAGGCCCAA
 1381 ATGAATTTGG GGAGCAGCTG GGGTAGGAAC CTTTACTGTG GGTGGTGACT TTTTCTAGGA
 1441 CATGTGCAAA CTATTGGGCA TTTCCCAGGG ACTCTGTAGT GGAGCCAAGC TAGAAAGCAG
 1501 AGGCAAGTGG CATTGAGCAAC ACCTAAGGAG GAAGCCAGAG TGAAAGCTTG GTTCCTTGCA
 1561 TTTGCTCTGG CATCTTCCAG AGTGCAAAAT TCCTACCAAG GTAATGAGGG TAGAGGAGAG
 1621 AAAGAAGCTC TTTCTTCCCT TGATTCTCAT TCCTGAAAAG ACGGTTGGTC CTTAAATTC
 1681 CATGGATGTA GATCTTATCC CCACACCAG ATTCTAGTCC TCTGGAGATA AAGAAGACTG
 1741 CTGGACACTA ATGTATCCTC TCTGGACTTT TGCAGCTCCA GATGGCGTGT TAGCAGGTGA
 1801 CTTCTCTGTT TCTGTTCCCT TGGTGATCA ACATGCTGCT GCATTGCTTT CCTCTCACTA
 1861 TTTTCTTCTG CCCATCACTT CTGCTTTCTA ATGAGCATGA ATCTGTTTCT TGGCCAGACT
 1921 ACTTCCCTC TCCACCTTGC CTGCTTCTT TTTTTTCCC TGATTCAATG CATCTCTCA
 1981 AGTCATTCTC TCCTCTGTTT TAGTCAATAA CCATGTCTGT TGCACATATA CATGTCTCAT
 2041 TCTCTCTCCT AGACACTTTC GCATGATCTC GCTCAATAAT TACATTATTA TTATTATGTC
 2101 CATTTTATAA TTGAGGATGC TGAAACTCAG TGATTTTCTG GTGGTTACAT GGCTAAGGAA
 2161 CTGGATTACA ACGTAAGTTC CTTGGATCTA AGTCCAGTTC TCTTCTGACT ATATCACCCCT
 2221 TTTGTTATCA CCATGTATCT ACTTCTTGG TCTCTGTGTA AATTTGCACT ACATCCCCTT
 2281 GTTCCAGGAA GCCATTCAAG ACTGACTTTC TTAGTGCTCT TCACTACTTT CTGGAAGTGA
 2341 CATATGTTTT TCACTCTGTA TATACTTACA ATTAAATAGT CATAAATATT CAGAGCTTGG
 2401 AGAAACCTTA TATTTTATCC AGTCCAGTAA ATTTATCCAT CCATAATTCA CTCATTCAAT
 2461 CACATAATAA ATATTTAATG TAACAATGGT TGAACATGGC AGACAGTGT TCTACCTCAA
 2521 AAGAGATTGC AGTCCCTCATT TACAGATACT GAATTGAAAT TAACAGAAGT AGAGTGAGTC
 2581 AGCTCAAATC ACATAGTGAA TTGGTTTCTT TGTTTTTAAA TCTCCTGCAT ATGTGTCCTG
 2641 TCTTTCTCCC GTGTTTGGGG GTCCCTGGG GCACCAATAC TAATTTCTCC TCCCCTAGA
 2701 AATCAAAACA GGGTCTTATC ACCAACAGAA TAAGGACAGG TTGACCACTG ATTGTGAGAA
 2761 TATTGCTTCG TTTGTACTTT TAAGCCTAGA CAGTTTTCAA TGACTTTTTT TCTCTCTACA
 2821 TGTCTTTTCA TATTTTTATC TTCTTGAGT CCCTCAGAAA CCTAAGGTCT CCTTGAACCC
 2881 TCCATGGAAT AGAATATTTA AAGGAGAGAA TGTGACTCTT ACATGTAATG GGAACAATTT
 2941 CTTTGAAGTC AGTTCCACCA AATGGTTCCA CAATGGCAGC CTTTCAGAAG AGACAATTC
 3001 AAGTTTGAAT ATTGTGAATG CCAAATTTGA AGACAGTGGA GAATACAAAT GTCAGCACCA

3061 ACAAGTTAAT GAGAGTGAAC CTGTGTACCT GGAAGTCTTC AGTGGTAAGT TCCAGGGATA
3121 TGGAAATACA GATCTCTCAT GTGAGGGATG GCTCATCTGA AGATGGGAAA AAACAGGTTA
3181 TTCCAAGGCT TAGGACACCA GAGTGGGATT CAAGGCCTCT CATTTTTAAG ACCCTTGCAT
3241 TGGCTGGGCA CAGTGGCTCA CGCTGTAAAT CCCAGCACCT TGGGAGGCTG AGGCAGGTGG
3301 ATCACGAGGT CAGGAGATCG AGACCATCCG GCTAACATGG TGAACCCCCA TCTCTGCTAA
3361 AAAATATATA TATATAAAAT TAGCCGGGCG TAGTGGTGGG CACCTGTAGT CCCAGGTACT
3421 CGGGAGGCTG AGGCAGGAGA ATGGTGTGAA CCCAGGAGGT GGAGGTTGCA GTGAGCTGAG
3481 ATCACGCCAC TGCCCTCCAG CCTGGGCTAC AGAGCAAGAC TCCGTCTCAA AAAATAAATA
3541 AATAAATAAA AAAGACCCCT GCATCTCTTT TCTTCTACCC CCTTCCCTTT TGATTACTTG
3601 TATGCCTTCT TTCAATATTC TAGTCATCTC TCAATATTAT TCCTCCACCC TATTTTCCTC
3661 TTAGCAAAAT GCCTAGATTC AGGTATATAT TATGTGGTCA AACAGCATGA CATATATGTG
3721 AACATTTCAA AGAGCTGTGT ATCTGGAATA GGATCAAAAG GTTTGACTTA AAGTTTGTCT
3781 CTGCATAATC CATATGGCAG GACCTGAATA TTAGGTTGTA CTCTTCGTTA TGAAACATAT
3841 CTGGGTACAT TTCCCTTATGT CCTCTGTTGT TACTTAAAGAA CACATATTTT ATGCTTGTCT
3901 CATTTTTATC ACTCCTACTG CCAACAAATA GCATAGCATG CTTAGGCACA TGTGGCTTAA
3961 TTAGCAAAAT TTTGAATAAC AAATTAATGA TTTTGAATAG TGACCAATAG GTCTCTTTTA
4021 TACTCTATAT TTTTCTCTTG AGTGAAAAAA AATGTTTCAA CCTCCATATG TAAATTCCAA
4081 ACACAACTA AAGCAATGTA GAATAGCTTC TTTATTCCCT GGAGTAGGTT CTAGAGAAGT
4141 CCTAAAGGAT TGGTCTCTAA TTAATTATGC TTATTATGCT AGCGATATTT CCTTTCAAAA
4201 TTCTCCTTTA ATGAATGCTT TTTAATTTTT ACAAAGCAT TAACCATAGA ATGTGATTCT
4261 TGTCTTTTAC TGACTCATTA GTGACAAATA TTTGTTGAGT ACCTACCAAC TCCTAAGTAT
4321 TGCTACCAAC TCCTAAATAC TGTGTTGGGC ATTCAGAATA GAATGTAGAA CTAGACAGGG
4381 TCCCTGACTT CTGAGGACAG AGAGCAGTAT GGAAGAGGA CATTAAATAA AGAATTACAT
4441 AAGTAATTAA TTTAAATAT ACATGTTTGT AAGAAGTTT TTTTGTACAA CTATAATTAA
4501 CACTAGAACT GGAAGTTTC TATAAGGTAA GAGAGGACAA AATAGACACT CTCCTAAGCT
4561 AAAATTCCCA AGAAAGACTG TTTATTTTCC CTTAACTAAC TAGAACTAGC AACAGAAGAT
4621 CTGAAAGGAA TTCTGGCTTT CAAGTGTTC ATGTATGGAC TCATCAGGGA GGTCCGAGAG
4681 GCTTGTGGC CCCAGACTGA CTTTTCAGGA GGGGAAAGGA TTTATCAATA CACAAGACAG
4741 GCTCTAAGCA TTATTTTGTG CCCTTTAAAA ATCCACTTTA TGAGCCAAAA AGTGAGTTAA
4801 TGATAATTCA TAGTTTCTGA CACATGCTCT ATGCGTGGCT CTCTTTTCTC TATTCATTCT
4861 CTCTCTTCTC ATTTATTGTT AAATAAATAA TGTAATGAAT GTTCTTCAGA CTGGCTGCTC
4921 CTTCAGGCCT CTGCTGAGGT GGTGATGGAG GGCCAGCCCC TCTTCTCAG GTGCCATGGT
4981 TGGAGGAACT GGGATGTGTA CAAGGTGATC TATTATAAGG ATGGTGAAGC TCTCAAGTAC
5041 TGGTATGAGA ACCACAACAT CTCCATTACA AATGCCACAG TTGAAGACAG TGGAACTTAC
5101 TACTGTACGG GCAAAGTGTG GCAGCTGGAC TATGAGTCTG AGCCCTCAA CATTACTGTA
5161 ATAAAGGTG AGTTGGTAAA GGAAAGGAAA AGCATCCATA GCAGGGGAGG GAAGAGAGAA
5221 CTTCTGAGCC TGAGCAGTTG CAGCTTGTAG AAGGGGGGCA CCTGTGATAC ACTGGAAGC
5281 CTACCAGACT TGCAATGAGG AGACCTGGGT GATAGTATAT ATCTCAATCT CTGTTTCAA
5341 GCCTTGACTT GTTAAATGTT GATAGTAATA CCTGCTTGA CTATGAAAT TTTATGAAGA
5401 TGAATGTGGT AATATTTGTG AAATGACTTT GTAACTGTT AAGCACTACC CAAGCATAAC
5461 AGATTGTGAT TACTATTTTG ATCTCAAAGT CATCTGTTGC TCCTGGGGGA ACACCTATAT
5521 TTATCAAATT GAAAAAAGT TTCAAAGTTG AATGAAGAAA GGATATAAAG AGCTTGAGGA
5581 GCCCATTCCA GCTTAGGAGG GCTGGGAAAG GAAACCAGCA AGTCAGTAAG CTGTGTGCCT
5641 GTGTATTGAG GGAGGAGGGA ATGGACTTGA TATGGAGAGG GTAGGGAGGT GGACTGCCTC
5701 TATGGCCTGT AAGAAAAACT GCTCTCTCCA AACTCTTTAT AAGAGAGGGA GCCTGTGAAG
5761 TATTCACTTT TGAAGGAGAA AGTTAGACTT TTCCCTCACA CACTTTGTAC ATAATAATGT
5821 TTAATAAAGC ATGAGGTCAA AATACATAAT TAAGTCTTAG CAGTTCTCTG TTAACATAAT
5881 TGAGACTGAA GTGCTATGTA CTGTCTCTA GGCTTCCAGT ATCTTCATCT GTAAAACAGA
5941 ATATTTGGTC TAGATTCCAT TAGAATCATT TGATAACTTA AAAAATATAT TGATGCTCAT
6001 GTCTCATTTT TTGAGATTCT GATTTAATTG GTTGGGGTGG CAGCCTGGGT ATACGTATTT
6061 TTCATAGGTC TTTCACATAA TGGTAATGGG TAGCCAATAT TGAGAATCAC TTGTCTAGGT
6121 GATCTTTTAA TGATTTCTGG ATGTAATATT CTGAGGCTCT ATAATTTGAG ACTAATCACA
6181 AAAATCGGTA CAGTTTATAA ACAGACTAAC AGAACCACAA AATAATAGAA TTGGAAGGCA
6241 ATTTAACTAG TGCAATTTCT TCATTTTGCC TAACAGGCAT GTAAGAAATG ATGATTGATT
6301 GAGTAATFAGG CATTGATGAC CCTGTCTCCT ACTTTGTCCC CTTTCCACCC CTTAATTATA
6361 TGTGAATTCT GGTCTTGTCA TTTCGAATAA GGGGTTTATC TTTCCTATTG TCTTCCCCTC
6421 TGGGCACGGC ACACTGGCTA CTGGAGTTAA GAGGAAATGC TTAGGACTCC CTGTGGCTCC
6481 AGGGAGCACC AACAGAGCAA CTCAACCTAG TGTTAATCTG AGTGTCTTCT CTGTGCTTCT
6541 GGATGCCACA TCACGCTAAA AATGAAGGAC AAAGCTTGGT CTTTCTCTTA GGGAGGATGA
6601 AACTCTGAC CCAATTTTTC AGTTCCCAAG ATGAATTTAT TTTCTCATG CATCTGTGTT
6661 CCACTACAGC TCCGCGTGAG AAGTACTGGC TACAATTTTT TATCCCATTG TTGGTGGTGA
6721 TTCTGTTTGC TGTGGACACA GGATTATTTA TCTCAACTCA GCAGCAGGTC ACATTTCTCT

6781 TGAAGATTAA GAGAACCAGG AAAGGCTTCA GACTTCTGAA CCCACATCCT AAGCCAAACC
6841 CCAAAAACAA CTGATATAAT TACTCAAGAA ATATTTGCAA CATTAGTTTT TTTCCAGCAT
6901 CAGCAATTGC TACTCAATTG TCAAACACAG CTTGCAATAT ACATAGAAAC GTCTGTGCTC
6961 AAGGATTAT AGAAATGCTT CATTAACTG AGTGAACTG GTTAAGTGGC ATGTAATAGT
7021 AAGTGCTCAA TTAACATTGG TTGAATAAAT GAGAGAATGA ATAGATTTCAT TTATTAGCAT
7081 TTGTAAAAGA GATGTTCAAT TTCAATAAAA TAAATATAAA ACCATGTAAC AGAATGCTTC
7141 TGAGTATTCA AGGCTTGCTA GTTTGTTTGT TTGTTTTCTA CTAAAGGCAA GGACCATGAA
7201 GTTCTAGATT GGAATGTCC TCTCTGACT ATTGCAAGTG CGATCTAGGA ATGAAAAGAC
7261 ATAGGAGGAT GCCAGTGAGG TGGATCATT TTATGCTTCT TCTTCAGCTT ACTAAATATG
7321 AACTTTTCAGT TCTTGGCAGA ATCAGGGACA GTCTCAAGAC ATAGGACTCT CAGGATGAAG
7381 TAGAGTCCAG GATTCCTCTG TGATTGTTTT GCCCTCCCA AATTATATC TTGAACTTAT
7441 GTCTTGATC TTTATACAGC ACCTGAACCA AGCATTTTGG AGAAATTCCA GCTAATAATA
7501 ATAACCAAAA CCTTCGGCTC TGAACACAGT CCAGGACTGA ATAAGATCTT GGGCAAAAGA
7561 ACTAGACAGT TTTGGTTTAT TTTCCCTTTC ATTTTATGTC TTCATCATAG TCATTGGAGG
7621 CTCATTCTTC TTGTCATGGA GTAAATGGGA TTAAGATTTC

(2) INFORMATION FOR SEQ ID NO:2502:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1198 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2502:

1 TACTAAGAGT CTCCAGCATC CTCCACCTGT CTACCACCGA GCATGGGCCT ATATTGAAG
61 CCTTAGATCT CTCCAGCACA GTAAGCACCA GGAGTCCATG AAGAAGATGG CTCCTGCCAT
121 GGAATCCCTT ACTCTACTGT GTGTAGCCTT ACTGTTCTTC GCTCCAGATG GCGTGTTAGC
181 AGTCCCTCAG AAACCTAAGG TCTCCTTGAA CCCTCCATGG AATAGAATAT TTAAGGAGA
241 GAATGTGACT CTTACATGTA ATGGGAACAA TTTCTTTGAA GTCAGTTCCA CCAATGGTT
301 CCACAATGGC AGCCTTTTTC AAGAGACAAA TTCAAGTTTG AATATTGTGA ATGCCAAAT
361 TGAAGACAGT GGAGAATACA AATGTCAGCA CCAACAAGTT AATGAGAGTG AACCTGTGTA
421 CTGGAAGTTC TTCAAGTACT GGCTGCTCCT TCAGGCCTCT GCTGAGGTGG TGATGGAGGG
481 CCAGCCCCTC TTCTCAGGT GCCATGGTTG GAGGAAGTGG GATGTGTACA AGGTGATCTA
541 TTATAAGGAT GTGAAGCTC TCAAGTACTG GTATGAGAAC CACAACATCT CCATTACAAA
601 TGCCACAGTT GAAGACAGTG GAACCTACTA CTGTACGGGC AAAGTGTGGC AGCTGGACTA
661 TGAGTCTGAG CCCCTCAACA TTACTGTAAT AAAAGCTCCG CGTGAGAAGT ACTGGCTACA
721 ATTTTTTATC CCATTGTTGG TGGTGATTCT GTTTGCTGTG GACACAGGAT TATTTATCTC
781 AACTCAGCAG CAGGTCACAT TTCTCTTGAA GATTAAGAGA ACCAGGAAAG GCTTCAGACT
841 TCTGAACCCA CATCCTAAGC CAAACCCCAA AAACAAGTGA TATAATTACT CAAGAAATAT
901 TTGCAACATT AGTTTTTTTC CAGCATCAGC AATTGCTACT CAATTGTCAA ACACAGCTTG
961 CAATATACAT AGAAACGTCT GTGCTCAAGG ATTTATAGAA ATGCTTCATT AACTGAGTG
1021 AAAGTGGTTA AGTGGCATGT AATAGTAAGT GCTCAATTAA CATGGGTTGA ATAAATGAGA
1081 GAATGAATAG ATTCATTTAT TAGCATTGTG AAAAGAGATG TTCAATTTC AAAAAATAAA
1141 TATAAAACCA TGTAACAGAA TGCTTCTGAG TAAAAAATAA AAAAAAATAA AAAAAAATAA

(2) INFORMATION FOR SEQ ID NO:2503:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 894 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2503:

1 TCTCAATATA ATAATATTCT TTATTCTCTG ACAGCTCGGT TAATGAAAAA ATGGACACAG
61 AAAGTAATAG GAGAGCAAAT CTGCTCTCC CACAGGAGCC TTCCAGTGTG CCGCATTTG
121 AAGTCTTGGA AATATCTCCC CAGGAAGTAT CTTGAGGAG ACTATTGAAG TCGGCCTCAT
181 CCCACCACT GCATACATGG CTGACAGTTT TGAATAAAGA GCAGGAGTTC CTGGGGGTAA
241 CACAAATTCT GACTGCTATG ATATGCCCTT GTTTTGGAAC AGTTGCTGCT TCTGTACTTG
301 ATATTTCACA CATTGAGGGA GACATTTTTT CATCATTTAA AGCAGGTTAT CCATTCTGGG
361 GAGCCATATT TTTTCTATT TCTGGAATGT TGTCATTTAT ATCTGAAAGG AGAAATGCAA
421 CATATCTGGT GAGAGGAAGC CTGGGAGCAA AACTGCCCAG CAGCATAGCT GGGGGAACGG
481 GAATTACCAT CCTGATCATC AACCTGAAGA AGAGCTTGGC CTATATCCAC ATCCACAGTT
541 GACAGAAATT TTTGAGACC AAGTGCTTTA TGGCTTCCTT TTCCACTGAA ATGTAGTGA
601 TGATGCTGTT TCTCACCATT CTGGGACTTG GTAGTGCTGT GTCACTCACA ATCTGTGGAG
661 CTGGGGAAGA ACTCAAAGGA AACAAGGTTT CAGAGGATCG TGTTTATGAA GAATTAAACA

721 TATATTCAGC TACTTACAGT GAGTTGGAAG ACCCAGGGGA AATGTCTCCT CCCATTGATT
 781 TATAAGAATC ACGTGTCCAG AACACTCTGA TTCACAGCCA AGGATCCAGA AGGCCAAGGT
 841 CTTGTAAAGG GGCTACTGGA AAAATTTCTA TTCTCTCCAC AGCCTGCTGG TTTT

(2) INFORMATION FOR SEQ ID NO:2504:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11298 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2504:

1 AAGCTTTTCA AAGGTGCAAT TGGATAACTT CTGCCATGAG AAATGGCTGA ATTGGGACAC
 61 AAGTGGGGAC AATTCCAGAA GAAGGGCACA TCTCTTCTT TTCTGCAGTT CTTTCTCACC
 121 TTCTCAACTC CTACTAAAAT GTCTCATTCT CAGGTTCCTGT AAATCCTGCT AGTCTCAGGC
 181 AAAATTATGC TCCAGGAGTC TCAAATTTTC TTATTTTATA TTAGTCTTTA TTTAGTAGAC
 241 TTCTCAATTT TTCTATTCAT CACAAGTAAA AGCCTGTTGA TCTTAATCAG CCAAGAACT
 301 TATCTGTCTG GCAAATGACT TATGTATAAA GAGAATCATC AATGTCATGA GGTAAACCCAT
 361 TTCAACTGCC TATTCAAGAGC ATGCAGTAAG AGGAAATCCA CCAAGTCTCA ATATAATAAT
 421 ATTCTTTTAT CCTGGACAGC TCGGTTAATG AAAAAATGGA CACAGAAAGT AATAGGAGAG
 481 CAAATCTTGC TCTCCACAG GAGCCTTCCA GGTAGGTACA AGGTATTAT TTTTCTTACC
 541 CTCAGTCACT TGTGGCAGGG GAAGTCATAG TCACGGTGCT TAGGAGATGA AACTTTATTG
 601 ATTTAGGCAT GGATCCATCT AGTTTAATTA ATATATTGGG TATGAGGAAG CTACTTGCTG
 661 TACTTTCCAT GTGGTTCTCT CTCCCTGGAG AGGAACATTT TACTCAGCT TGCAAACCTGG
 721 AAATAGATTT TCTCACATTA GAAGCTCAT TTTCTGGTAT GAGACAGGAG AGTTCATACT
 781 GTGTATGTAG ATCTCTGGCT TCTGGGTCTG ACATGTGCTG AGGGACACAT ATCCTTCACA
 841 CATGCTTTTA TAAATACTTG ATAAAGTAAC CTGCTTCTTG ATTGGTCTTT ATAATCCATA
 901 AGCTGTGGGA TGCTTCTCTG AAGATGAAAA TAGTAATAGA GTCCCATCTA GCTATTCAAA
 961 GCCATTCCCT CATTTGATTC TGTGCACATG AAGTTGGGGT TTGTTACTGA CAAAATATAT
 1021 TCAGATACAT TTCTATGTTA AAAGGATTGT GAGATGCATA GGTAAATGTG TTTATTTTCA
 1081 GTTTTACTTG TCAACATAGA TGAATGAGAA AGAACTTGAA AGTAACACTG GATTAAGAAT
 1141 AGGAAAAATTT GGCATGGATT TTGCTCCATT TTGTCCTATC TAATCACTTG GATAGTGTTC
 1201 AGGTGTTCTT GGTCACTTAC TTGGATGCTC TGAGCTTTAG TTTCTTGGTG ATTACAATGA
 1261 AGATTGGAAT TACAGGATGG CTTTGAAAAA ATAAACAAAA CTCCCCTTTC TGTCTGTCTG
 1321 GAATGTTGCA CAGGGAGTTA CAGAATGTTT TCATGACTGA ATTGCTTTTA AATTTACACG
 1381 TGTGCCTGCA TTTGAAGTCT TGGAAATATC TCCCAGGAA GTATCTTCAG GCAGACTATT
 1441 GAAGTCGCC TCATCCAC CACTGCATAC ATGGCTGACA GTTTTGAAAA AAGAGCAGGA
 1501 GTTCTGGGG GTGAGTGAGC CTCTCCAAC TTTGACTAGA GTAAGGGTTG GGTCTAGAAA
 1561 AGAATATTGA GTTGCATCAA CTGTTTTCCC ACTTGGATT ATGAGAGGTG TTAGGTCCTT
 1621 TAAAAAACAT GGTAGATAAA GAGTTGACAC TAACTGGGTC CTTTGGGAA GAGCCAGAAG
 1681 CATTTCCCTCA TAAAGACTTT AAATTGCTAG GACGAGAATG GCCAACAGGA GTGAAGGATT
 1741 CATAACTTTA TCTTTACTTA GATGTAAAGA ACAATTACTG ATGTTCAACA TGACTACATA
 1801 CATAAAGGCG CATGGAGAAA AGTATTGGCC TTCCATGCAT TAGGTAGTGC TTGTATCAAT
 1861 TCTTATAGTG CTAGGGTAT CCTGGAAAT CTTACGTGTG GATCATTCT CAGGACAGTC
 1921 TAGGACACTA ACGCAGTTTC TCATGTTTGG CTCTATTAT TAAAAAATGA TACAATCTCG
 1981 GGAAAAATTT TTTGATTTTC ATGAAATTCA TGTGTTTTTC TATAGGTAAC ACAAATTCTG
 2041 ACTGCTATGA TATGCCTTTG TTTTGGAACA GTTGTCTGCT CTGTACTTGA TATTTACAC
 2101 ATTGAGGGAG ACATTTTCTC ATCATTTAAA GCAGGTATATC CATTCTGGGG AGCCATATTT
 2161 GTGAGTATAT ATCTATAATT GTTCTGAAA TAACACTGAA CATAGGTTTT TCTCTTTCTC
 2221 AGATCTAACC AGTTGTTTAT TCCCAGTATT AAGATGATAT TTATAATTCT TAATTATAAA
 2281 TATATGTGAG CATATATAAC ATAGATATGC TCATTAACAA CAACAAAAGA TTCTTTTAC
 2341 AATTAACGGT GGGTTAAACA TTAGCCAC AGTTTATCC CATGAGAAAC CTGAATCTAA
 2401 TACAAGTTAA ATGACTTGCC TAAGGGCCAC TTGACTAATA GTAATTGAAC CTAAACTTTC
 2461 AGAATCCAAC TCCAGGAACA TACTTCTAGC ACTATTATC AATAAAGTTA TATGATAAAT
 2521 ACATACAACT TTATCTGTCA ACTAAAAATA ACAACAGAGG CTGGGCATGG TGGCTCACAC
 2581 CCGTAATCCC AGCACTTTGG GAGGCTGAGG CAGGTGGATC ACCTGAGGTC AGGAGTTTGA
 2641 GACCAGCCTG ACCAACATGG TGAACCTCA TCTCTACTAA ATATAAAAAA TTAGCTGAGT
 2701 GTGATAGTGC ATACCTGTAA TCCAGCTACT TAAGAGGCTG AGGCAGGAGG CTTGTTTGAA
 2761 CTTGGAAGGC AGAGGTTGCA GTGAGCTGAG ATTGTGCCAT TGCATCCAG CCTGGGCAAT
 2821 AAGTGCGAAC TCTGTCTCAA AATAATAATA ATAATAATAG AAAATAAAGT TGTCTTCATG
 2881 AAAAATGAGG AAAGAGATTG CTGGGGTGAG AAACATTAAG ATCAATGGGC ATATGGTGAC
 2941 CTTCTATGCC CTAGAACTC TTTTANGGTA TTTTCTCCTG GTATCTCTTT TACNCATCGT
 3001 TCTATCTGGA AAAATAGGTG GATGAGTGAG ATAATAACGG TATATACTTT TTAAGGTCT

3061 AATTGACATA TATAAATTGC AAGTATTTCA GATGTCAATT TGCTAACCTT GACACACATA
3121 GACACACATG AAAACATCAC CACATTAATA CAATGTATGT ATCCATCATT CCAAAAGCTT
3181 CCCTGTGTAT CTTTGTAACT CTTTCTTCCT CCCTCCACTC CTGTCTCTCT CGTTCCCAAG
3241 AAAACATTGA TCTGCTTCCT GTGAATATAA ATTAACCTTAC ATTTTTTAGA GCTTTATATA
3301 AGTATGTTCT CTTTACTGTT TGTCTTCCTT CGCTGCACAG TTATTTTGAG ATTCTTCAAG
3361 TTTTTTCTTT ATATCGATAC TTCATTACACA AGAATATATT TTAATTCTAG ACTATGTCAC
3421 ATTGACTTTG TCGTCTGCTA AATCCTTAGT GCTCAGATGA CTGTTCAGG ACTCTCCTTG
3481 AACCTGTACC TCTGTTANAT TGAAACTTGT CTCTACTGTC TTTTTATTTC AAACACAGCT
3541 TATTAGGTGT CTCTCAACCC ATCAAACNCA CAATCTGAGT CTTTAGGAGA TTGCTTTGAA
3601 TTTGTGCTAT TGACTTATAT NTATATNAAA TNTGTAAATG TTTGGTAAAA ATATCATCAT
3661 GTACNTTTTC ATAATTACGC TATNTNCACA TGATATATGT CAGACTCTGG AAATATGCAT
3721 GCCACAGACA CGTGTTCCTT GCCTAAAGGG GCTGATGGAA GACNCACATA CNAATAGACG
3781 ATTGCAGTAG AATGAGAGTG GTGGTCTAAN CAGTACATGT CCTGATGTTG CTCGGACAGT
3841 TACTACNCCA AGAGTACCCC CTGCATGTGC AGGGTTAGCA TCTCCTGGAA GCCTCATGTA
3901 AATGAAGAAT TTCATGCTCC ATCCAGGACC TAATGAATAA GAATCTGCAT TTTAGCAAGA
3961 CCCTCATATG ATTCATATAC ACTTTTTTTT TTTTTTTTTA GATGGAGTCT CACTCTTGTC
4021 GCCCAGGCTG GAGTGCAATG GCATGATCTT GGCTCACTGC AACCTCTGCC TCCCGGGTTC
4081 AAGTGATTCT CCTGTCTCAG CCTCCCTAGT AGCTGGGACT ACAGGTGCAT GCCACAGTGG
4141 CTGGCTAATT TTTGTATTTT TAGTAGAGAC AGGGTTTCAC CATTTTGGTC AGGCTGGTCT
4201 TGAACTCATG ACCTCCGGTG ATTCCCGCGC CTCGGCTTCC CAAAGTGCTG GGATTACAGA
4261 CATGAGCCAC CACACCCGCC TTATTCGTAT ACNCATTTAA TTCTGAGAAG CACTCTATAG
4321 AAAATAAGAA TAAGAAAATA TTGGGCTCAC AGGTGACATT AATAAGTAAC TTTATCGAGT
4381 ACCCCAATTT TTACCTATGT TTGGAAGATG GGGTTAAAAG GACACATTGA AAACAAGAAC
4441 TCATTGTGGC TTTTTTTTCC TCCTTTTTGA ACAGTCTTCT ATTTCTGGAA TGTGTGCAAT
4501 TATATCTGAA AGGAGAAATG CAACATATCT GGTGAGTTGC CCGTTTCTGT CTTTGTCCAT
4561 CCTTGAAAAG ATAAGAAGAA CAGAGTTTTA AGAGTCTTAA GGGAAACACA TCTTTGTCTC
4621 CTATATTACT TGTGAATGTG GATATATGAT TTTGTTTCAA TCTATTTTGT GTCCTAAGGC
4681 TTTTGTCAAC AGAAGTTGGA TATATCATTG GAAACATAAA TTGTACCATT TAACATACAT
4741 GAAGTTTATG TTTACCTTGA CGTTCTTCTA AAAAGTGTCC TACACCGGCA TTGTCTTGT
4801 AGGCATATTC ACATGATCAA ATAAAAAAT TAGTTTTCAA TTAAGGAGAA TATTTGAGGA
4861 AAGACCGTAC GTGTTTATGT GGTTCCTGAA GGCAGTCCAG TGAGAAAGTA ATATATGCTT
4921 CATTAAACAA TGCGGACATT TTCAGGGTTT CCCTTTTTAA CCAAAATTTG GAAGCAATGT
4981 GGAATTTACT GGATGCATCC AGCCCTGAAA TGAAGATAGG TTTATTGAAT GTGCCAGCAA
5041 GTGCAGGCCC AGGTCTGAGT GTTCTTCATT ATTATCAGGT GAGAGGAAGC CTGGGAGCAA
5101 AACTGCCCAG CAGCATAGCT GGGGGAACGG GAATTACCAT CCTGATCATC AACCTGAAGA
5161 AGAGCTTGGC CTATATCCAC ATCCACAGTT GCCAGAAATT TTTTGAGACC AAGTGCTTTA
5221 TGGCTTCTCT TTCCACTGTA TGTATTTTTT TTTGTGTGGG AAGACTAAGA TTCTGGGTCC
5281 TAATGTAAGT AAGAGCCCTT CTTCTCCTGT TCCATGAACA CCATCCTTTT CTGTAACCTC
5341 TATTACACAG TATAGTGTTT CTGTAAGTTC ACACAGCCCA GGGAGATGCT GGCTGCCAC
5401 TCCCCTCAAC CCAGGCAAT TCCTCGGGGT TAAAGTTATC TACTGCAAGT GACGATCTCT
5461 GGGTTTTTCT GTGCCTGTGT TTGTGTGTGT GTGTGTGTGT GTGTGTGTGT GTATGTGTCA
5521 CTTTAAAGG ACTGGTCAGA TGGTAGGGAG ATGAAAACAG GAGATGCTAT AAGAAAATAA
5581 ACTTTTGGGG CGAATACCAA TGTGACTCTT TTTGTTTGTG ATTTGTGCT GTTCAATAGG
5641 AAATTGTAGT GATGATGCTG TTTCTCACCA TTCTGGGACT TGGTAGTGCT GTGTCACTCA
5701 CAATCTGTGG AGCTGGGGAA GAACTCAAAG AGATAGAAGC CCGATATAAA
5761 ATCTTGAATG ACAGGTTAAC GAATTGGAGC TTTATTCCTT AAAATATGGC CTGGGTTTTT
5821 TGAAACATTT CTTCCAGAAA ATAGTTTCTC CAAGTTTAT TACTTTGGTT TACAAATCTC
5881 ACATTTAAAT CACATTTTAT ACCATAAGTA GCACACATTT CATAATATTC CTCTGAATGA
5941 GGGTTGGGAT AATAGGACTG ATATGTTAGA AATGCCTTAA AGTGTGTGGA GCATGAGAGA
6001 TGGATGTACA GAAGGCTTGT GAGGAAACCA CCCAGGTATC TGGCCTTGTT TTCTGCCCCA
6061 GAACTAGCCG CCTATTCCTG TTTCTGTTTT ATTCCTTTGT TTCTTGACTT TTCCTTTCCA
6121 ACTTGCTCTA AAACCTCAGT TTTCTTTCTT TTCTGATTCA TGACTACCAA ATGTTTTCAC
6181 TTGCCTCACC CGTCCATTAC ACCTTTGATA AGAACCACCA GACCTGTGTC TCATGTACTT
6241 GCCCATGTCT GATGGAAGAA ACATACTCTC TCCATCTGTC CACTTTCCTG AGGCATTCAA
6301 GTCTAGCCAC CTTTAAAAAT CACTCTCCTC CAGGCTGGGC ACGGTGTAC GCCTGTAATC
6361 TCAGCACTTT GTGAGGCTGA GGAGGGCGGA TCACTTGAAG TCAGGAGTTC AAAACCAGCC
6421 TGGCCAAATG GCAAAACCAA ATCTTCTTCA ATTATAACCA AATCTTAAAC CAAATCTCTA
6481 CTAAAAATA CAACAAAACA AAACAACAAC AACAAAAACA GAAAAGGAAA CATTAGCCCA
6541 GCGTGGTGGC AGGTACCTGA GGTTCAGAT ACTTGGGAGG CTGAAGCAGG AGAATCGCTT
6601 GAGCCCAAGA GATGAGGTT GCAGTGAGCC GAGATCATGC CACTGCACCA CAGCCAGGCT
6661 GACAGAGCCA TACTTCCAG CACATTGGGA GGCCAAAGCT GAAGAATAAT TTGAGGTGAG
6721 GATTTGAGGA CCAGCCTGGC CAACATGGTG AAACCTCCGC TGTACTAAAA ATATAAACT

6781	TAGTGGGGCA	TGGGGGCACA	CACCTGTAAT	TTCAGCTACT	TAGGAGGCTG	AGGCAGGAGA
6841	ATTGCTTGAA	CCCCGGGAGC	GGAAGTTGCA	GTGAGCCAAG	ATCGTGGCCA	CTGCACTCCA
6901	GCCTGGGTGA	CATAGTGAGA	TTCTGTCTCA	AAAAAATAA	AAGAAATTTA	AAAAATCACT
6961	CTCTTCCAAA	GATAGATAAA	TAAGACAGCA	GATATACTAA	GGAATAACCT	CACCAACTTG
7021	TCATTGACTG	ACATGATTTC	TTTTGGCCCA	CTTGGCCAGC	TAGTCTGGTT	TGGTTTTCTG
7081	GAAATGAAAG	AAATAATCAG	AGTTTAATGA	CAGAGAGCGT	GAGACCCAGA	AAGACAAAAG
7141	TAGATGAGGT	AAGTCTCTTG	AGCGAGACTT	CTAGGGATGG	GAAATTTGTG	GTGATTGATA
7201	TGAAATGATT	TTTCCCTTAT	CAGGTTCCAG	AGGATCGTGT	TTATGAAGAA	TAAACATAT
7261	ATTCAGCTAC	TTACAGTGAG	TTGGAAGACC	CAGGGGAAAT	GTCTCCTCCC	ATTGATTAT
7321	AAGAATCAG	TGTCCAGAAC	ACTCTGATT	ACAGCCAAGG	ATCCAGAAGG	CCAAGGTTTT
7381	GTTAAGGGGC	TACTGGAAAA	ATTTCTATT	TCTCCACAGC	CTGCTGGTTT	TACATTAGAT
7441	TTATTGCGCT	GATAAGAATA	TTTTGTTTCT	GCTGCTTCTG	TCCACCTTAA	TATGCTCCTT
7501	CTATTGTAG	ATATGATAGA	CTCCTATTTT	TCTTGTTTTA	TATTATGACC	ACACACATCT
7561	CTGCTGGAAG	GTCAACATGT	AGTAAGCAAG	ATTTAACTGT	TTGATTATAA	CTGTGCAAAAT
7621	ACAGAAAAAA	AGAAGGCTGG	CTGAAAGTTG	AGTTAAACTT	TGACAGTTTG	ATAATATTTG
7681	GTTCTTAGGG	TTTTTTTTTT	TTTTAGCATT	CTTAATAGTT	ACAGTTGGGC	ATGATTGTGA
7741	CCATCCACCC	ATACCCACAC	AGTCACAGTC	ACACACACAT	ATGTATTACT	TACACTATAT
7801	ATAACTTCCT	ATGCAAATAT	TTTACCACCA	GTCAATAATA	CATTTTGTCC	AAGACATGAA
7861	GTTTTATAAA	GATCTGTATA	ATTGCTGAA	TCACCAGCAC	ATTCACGTAC	ATGATATTAT
7921	TTGCAGATTG	ACAAGTAGGA	AGTGGGGAAC	TTTTATTAAG	TTACTCGTTG	TCTGGGGAGG
7981	TAAATAGGTT	AAAAACAGGG	AAATATAAG	TGCAGAGATT	AACATTTCAC	AAATGTTTAG
8041	TGAAACATTT	GTGAAAAAAG	AAGACTAAAT	TAAGACCTGA	GCTGAAATAA	AGTGACGTGG
8101	AAATGGAAAT	AATGGTTATA	TCTAAAACAT	GTAGAAAAAG	AGTAACTGGT	AGATTTGTGT
8161	AACAATTTAA	AGAATAAAGT	TAGACAAGCA	ACTGGTTGAC	TAATACATTA	AGCGTTTGAG
8221	TCTAAGATGA	AAGGAGAACA	CTGGTTATGT	TGATAGAATG	ATAAAAAGGG	TCGGGCGCGG
8281	AGGCTCACGC	CTGTAATCCC	AGCCCTTTGG	GAGGCCGAGG	TGGGCAGATC	ACGAAGTCAG
8341	TAGTTTGAGA	CCAGCCTGGC	CAACATAGTG	AAACCCCGTC	TCTACTAAAA	ATACAAAAAA
8401	AAAATTAGCT	GGGTGTGGTG	GCAGTCACCT	GTAGTCCCAG	CTACTGGGGA	GGATGAGGCA
8461	GGAGAATCGC	TTGAACCTGG	GAGGCGGAGG	TTGCAGTGAG	CCGAGATCGC	ACCAGTGCAC
8521	TCCAGCCTTG	GTGACAATGG	GAGACTCCAT	CTCAAAAAAA	AAAAAAGATA	AAAAAAGATA
8581	AAAAGTCAGA	AATCTGAAAA	GTGGAGGAAG	AGTACAAATA	GACCTAAATT	AAGTCTCATT
8641	TTTTGGCTTT	GATTTTGGGG	AGACAAAGGG	AAATGCAGCC	ATAGAGGGCC	TGATGACATC
8701	CAATACATGA	GTTCTGGTAA	AGATAAAATT	TGATACACGG	TTTGGTGTCA	TTATAAGAGA
8761	AATCATTATT	AAATGAAGCA	AGTTAACACT	CTAAGAGAAT	TATTTTGAGA	TAGAAGTGAA
8821	GCTAAGCTAA	ACTTCACATG	CCTATAATTG	GAGGAAAAAA	CTAAGGATAA	AATCTAGCCT
8881	AGAAATGATA	ATAATTAGTC	ATAACATGC	ATTGTGAAAC	TGTAGAGAGC	AGGTAGCCCA
8941	AAATAGAGAA	AGATTAGATA	AAGAGAAAAT	AAGTATCCAT	CAGAGACAGT	ATCTCTAGGC
9001	TTGGGCAAGA	GAAAAGTCCA	CAGTGATAAG	CAACTCCACC	TAAGGCATGA	ATATGCGGCA
9061	GAGAAAACAG	CAATAGTGAA	TGAATGCAAA	AGGTGCTGAG	CAAATTCCAC	ACATGAGTAT
9121	TGTGATCAG	TAAATGAATA	AAACATTTGC	AAAGACCTTT	AGAGAAAGAG	ATGGGAGCA
9181	TATGTGCGAA	ATAAGATAGT	TGATTATGAA	TAGAAGGTAG	TGAAGAAAAG	CAAGCTAAGA
9241	AAAAATTCCT	TTTATAAAAG	AAGGAAAAGA	TAGTTTATGT	TTTTAGCCTA	AGTATAAGAG
9301	TCCTACAGAT	GGACTGAAAA	AAATCAGTCT	GAGAGTATTA	GTCACAATTA	ATGAAATAAT
9361	TACATTTTAT	GTATTGAGGA	TGCCAAGATT	AAAAGGTGAC	AGGTAGATGT	TAATTTCCCT
9421	AGATTGTGAA	AGTGATCACG	ACAATCACAC	AACAAATAAT	TAAGTGACTT	GGTATGCTTT
9481	ATTTAATTGT	AGGCGCTGAG	GTTTTCCATT	CTCATTTTTT	TAAAATACAA	TTTTGTTTCT
9541	CCAAATTTGA	CAGCAGAATA	AAAACCCTAC	CCTTTCACCT	TGTATCATGC	TAAGTGCAT
9601	CTCTACTCTT	GATCATCTGT	AGGTATTAAT	CACATCACTT	CCATGGCATG	GATGTTTACA
9661	TACAGACTCT	TAACCCTGGT	TTACCAGGAC	CTCTAGGAGT	GGATCCAATC	TATATCTTTA
9721	CAGTTGTATA	GTATATGATA	TCTCTTTTAT	TTCACTCAAT	TTATATTTTC	ATCATGTGACT
9781	ACATATTTCT	TATACACAAC	ACACAATTTA	TGAATTTTTT	CTCAAGATCA	TTCTGAGAGT
9841	TGCCCCACCC	TACCTGCCTT	TTATAGTACG	CCCACCTCAG	GCAGACACAG	AGCACAATGC
9901	TGGGGTTCTC	TTCACTACTAT	CACTGCCCCA	AATTTGCTTT	CTAAATTTCA	ACTTCAATGT
9961	CATCTTCTCC	ATGAAGACCA	CTGAATGAAC	ACCTTTTCAT	CCAGCCTTAA	TTTCTTGCTC
10021	CATAACTACT	CTATCCCACG	ATGCAGTATT	GTATCATTTA	TTATTAGTGT	GCTTGTGACC
10081	TCCTTATGTA	TTCTCAATTA	CCTGTATTGT	TGCAATAAAT	TGGAATAATG	TAAGTTGATT
10141	TCTTATCTGT	GTTTGTGTTG	GCATGCAAGA	TTTAGGTACT	TATCAAGATA	ATGGGGAATT
10201	AAGGCATCAA	TAAATATGAT	CCAAAGACCA	AGAGCAGTTT	CTGAAGTCCT	CCTTTTCATC
10261	AGCTCTTTAT	CAAACAGAAC	ACTCTATAAA	CAACCCATAG	CCAGAAAACA	GGATGTAGGA
10321	ACAAATCACA	GCACACTCTA	TAAACAACCC	ATAGCCAGAA	AACAGAAATG	AAGGACAATC
10381	ACCAGCCATC	TTTTGTCAAT	AATTGATGGA	ATAGAGTTGA	AAGGAACTGG	AGCATGAGTC
10441	ATATTTGACC	AGTCAGTCCT	CACTCTTATT	TACTTGCTAT	GTAAACTTGA	GAAAGCTTTT

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 10561 TAACTGGTCT TTCTGTTCCC ATATTCTGTG ATTTTCAAT ATTTAGGATT TTTGGTAATC
 10621 ACAATTACTT AGTTTGTGGT TGAGATAGCA ACACGAATCA GAACTATTTG GTGGACATAT
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 10861 GCGGTGGTGG CGGGCGCCTG TAGTCCCACG TACTCGGAG GCTGAGGCAG GAGAATGGCA
 10921 TGAACCAGGG AGGCGGAGCT TGCCGTGAGC CGAGATAGCG CCACTGCAGT CCCTCCTGGG
 10981 CAAAAGAGCA AGACTGCGTC TCAAAAAAAA AAAAAAAGAA GTGTGTGGAG
 11041 TAGCAGGACA CCTGCAACAA TAATATTTT CTAATCCCT CTGAAAAATG CTAATCAAG
 11101 GGTTTTTTTC CTAAAAATTG TCTTAGAAAT AAAATTCCC CTTTGGGAGA CCGAGGCTGG
 11161 CAGATCACGA GGTGAGGAGA TAGAGACCAC GGTGAAACCC CGTCTCTACT AAAAATACTA
 11221 AAAATTAGCC GGGGNGTGGT GGTGGGTACA CCTGTAGTCC CAGCTACTTG GAGGCTGAGG
 11281 CTGAGAATC ACGTGAAC

(2) INFORMATION FOR SEQ ID NO:2505:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21802 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2505:

1 AACAAAGAAAA GCGTTGGTAG CTCTGGTGAA TCCCAAAAGA ATGTGGCAGT TGCTAGCCAT
 61 GCTCCTGAAT ATGTATAAAC AGTACATCAT ATGACTAAGA GTTTGACTTA GGGGTTAGAT
 121 TTTATGTGTT TGAACCCCAA ATTAGTTATT TAATAGTTGG CACCCCAAAA CAAGTTACTT
 181 AACCTCACTA AGGTTCACTT TTCTGTGTTA TAAATGTAG ATAGTGATAG TATGTACTTT
 241 ATAGGATTAT TGTGAAAAAT AAATGAAATA TCAGATTTAT TTAGGATAAC ACCTGGCATA
 301 TGTGTTGGTAT TCAGAAATTAG TTGCTGCTGT TTTATTTCTG TCTCCCTTGC ATCCCACCTT
 361 TCTAAGTTGT AAACATAAATA GTTGACACA GATTGACAGA TTAAGAAAGG CTGTGTATTG
 421 TGCTAGACCT ATGCTATGCT CTCTGTCTCA CCAGATTCCA GGTGTATATG TGGAGGTGGG
 481 ATAGGGAGTG GAGTAAGTGG GTAAATATTA AATTGCCAG TTGGGCACCA TCCTGAATAT
 541 TATCTCTAAA GAAAGAAGCA AAACCAGGCA CAGCTGATGG GTTAACCAGA TATGATACAG
 601 AAAACATTTC CTTCTGCTTT TTGGTTTTAA GCCTATATTT GAAGCCTTAG ATCTCTCCAG
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 694 GATCTTCATG TGAATGACT GGTTCATT C AATAGACTTA ATTCAGCAGT CTGTGGGGAA
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 814 CTGTCCCTGT CTTCTTCAGA GTTTTGGTAA AGATAAAATA GGACACTCAT TTAAGCAAA
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2434 CTGGACACTA ATGTATCCTC TCTGGACTTT TGCAGCTCCA GATGGCGTGT TAGCAGGTGA
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3121 GACACACATG AAAACATCAC CACATTAATA CAATGTATGT ATCCATCATT CCAAAGCTT
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3781 ATTGCAGTAG AATGAGAGTG GTGGTCTAAN CAGTACATGT CCTGATGTTG CTCGGACAGT
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3901 AATGAAGAAT TTCATGCTCC ATCCAGGACC TAATGAATAA GAATCTGCAT TTTAGCAAGA
3961 CCTCATATG ATTCATATAC ACTTTTTTTT TTTTTTTTAT GATGGAGTCT CACTCTTGTC
4021 GCCCAGGCTG GAGTGCAATG GCATGATCTT GGCTCACTGC AACCTCTGCC TCCCGGGTTC
4081 AAGTGATTCT CCTGTCTCAG CCTCCCTAGT AGCTGGGACT ACAGGTGCAT GCCACAGTGG
4141 CTGGCTAATT TTTGTATTTT TAGTAGAGAC AGGGTTTCAC CATTTTGGTC AGGCTGGTCT
4201 TGAATCATG ACCTCCGGTG ATTCCCCCGC CTGGGCTTCC CAAAGTGCTG GGATTACAGA
4261 CATGAGCCAC CACACCCGCC TTATTCGTAT ACNCATTTAA TTCTGAGAAG CACTCTATAG
4321 AAAATAAGAA TAAGAAAATA TTGGGCTCAC AGGTGACATT AATAAGTAAC TTTATCGAGT
4381 ACCCCAAATT TTACCTATGT TTGGAAGATG GGGTTAAAAG GACACATTGA AAACAAGAAC
4441 TCATTGTGGC TTTTTTTTCC TCCTTTTGA ACAGTTTCTT ATTTCTGGAA TGTGTCAAT
4501 TATATCTGAA AGGAGAAATG CAACATATCT GGTGAGTTGC CGTTTCTGT CTTTGTCCAT
4561 CCTTGAAAAG ATAAGAAGAA CAGAGTTTAA AGAGTCTTAA GGGAAACACA TCTTGTCTC
4621 CTATATTACT TGTGAATGTG GATATATGAT TTTGTTTCAA TCTATTTTGT GTCCTAAGGC
4681 TTTTGTCAAC AGAAGTTGGA TATATCATTA GAAACATAAA TTGTACCATT TAACATACAT
4741 GAAGTTTATG TTTACCTTGA CGTCTTCTA AAAAGTGTCC TACACCGGCA TTGTCTTGT
4801 AGGCATATTC ACATGATCAA ATAAAATAAT TAGTTTCAA TTAAGGAGAA TATTTGAGGA
4861 AAGACCGTAC GTGTTTCATGT GGTTCCTGAA GGCAGTCCAG TGAGAAAGTA ATATATGCTT
4921 CATTAACAAA TGCGGACATT TTCAGGGTTT CCCTTTTAA CCAAATTTG GAAGCAATGT
4981 GGAATTTACT GGATGCATCC AGCCCTGAAA TGAAGATAGG TTTATTGAAT GTGCCAGCAA
5041 GTGCAGGCCC AGTCTGAGT GTTCTTCATT ATTATCAGGT GAGAGGAAGC CTGGGAGCAA
5101 AACTGCCAG CAGCATAGCT GGGGGAACGG GAATTACCAT CCTGATCATC AACCTGAAGA
5161 AGAGCTTGGC CTATATCCAC ATCCACAGTT GCCAGAAATT TTTGAGACC AAGTGCTTTA
5221 TGCTTCTCTT TTCCACTGTA TGTATTTTCT TTTGTGTGGG AAGACTAAGA TTTGGGCTC
5281 TAATGTAAGT AAGAAGCCCT CTTCTCCTGT TCCATGAACA CCATCCTTTT CTGTAACCTC
5341 TATTACACAG TATAGTGGTT CTGTAAGTTC ACACAGCCCA GGGAGATGCT GGCTGCCAC
5401 TCCCTCAAC CCAGGCAAAT TCCTCGGGGT TAAAGTTATC TACTGCAAGT GACGATCTCT
5461 TGCTTTTCTT GTGCTGTGTG TGTGTGTGTG GTGTGTGTGT GTATGTGTCA
5521 CTTTAAAAGG ACTGGTCAGA TGGTAGGGAG ATGAAAACAG GAGATGCTAT AAGAAAATAA
5581 ACTTTTGGGG CGAATACCAA TGTGACTCTT TTTGTTTGTG ATTTGTTGCT GTTCAATAGG
5641 AAATTGTAGT GATGATGCTG TTTCTCACCA TTTCTGGGACT TGGTAGTGTG GTGTCACTCA
5701 CAATCTGTGG AGCTGGGGAA GAACTCAAAG GAAACAAGGT AGATAGAAGC CCGATATAAA
5761 ATCTTGAATG ACAGGTTAAC GAATTGGAGC TTATTTCTTT AAAATATGGC CTGGGTTTTT
5821 TGAAACATTT CTTCAGAAA ATAGTTTCTC CAAGTTTAT TACTTTGGTT TACAAATCTC
5881 ACATTTAAAT CACATTTTAT ACCATAAGTA GCACACATTT CATAATATTC CTCTGAATGA
5941 GGGTTGGGAT AATAGGACTG ATATGTTAGA AATGCCCTAA AGTGTGTGGA GCATGAGAGA
6001 TGGATGTACA GAAGGCTTGT GAGGAAACCA CCCAGGTATC TGGCCTTGT TTTGCCCCA
6061 GAACTAGCCG CCTATTCTGT TTTCTGTTT ATTCTTTGT TCTTGACTT TTTCTTTTCA
6121 ACTTGCTCTA AAACCTCAGT TTTCTTCTCT TTTCTGATTCA TGACTACCAA ATGTTTTTCA
6181 TTGCCTCACC CGTCCATTAC ACCTTTGATA AGAACCACCA GACCTTGTGC TCATGTACTT
6241 GCCCATGTCT GATGGAAGAA ACATACTCTC TCCATCTGTC CACTTTCTCT AGGCATTCAA
6301 GTCTAGCCAC CTTTTAAAT CACTCTCCTC CAGGCTGGGC ACGGTGTGAC GCCTGTAATC
6361 TCAGCACTTT GTGAGGCTGA GGAGGGCGGA TCACTTGAAG TCAGGAGTTC AAAACCGCC
6421 TGGCCAAATG GCAAAACCAA ATCTTCTTCA ATTATAACCA AATCTTAAAC CAAATCTCTA
6481 CTAAAAATA CAACAAAACA AAACAACAAC AACAAAAACA GAAAAGGAAA CATTAGCCCA
6541 GCGTGGTGGC AGGTACCTGA GGTTCAGAT ACTGGGAGG CTGAAGCAGG AGAATCGCTT
6601 GAGCCCAAGA GATGGAGGTT GCAGTGAGCC GAGATCATGC CACTGCACCA CAGCCAGGGT
6661 GACAGAGCCA TACTTCCAG CACATTGGGA GGCCAAAGCT GAAGAATAAT TTGAGGTGAG
6721 GATTTGGAGA CCAGCCTGGC CAACATGGTG AAACCTCCGTC TGTACTAAAA ATATAAACT
6781 TAGTGGGGCA TGGGGGCACA CACCTGTAAT TTCAGCTACT TAGGAGGCTG AGGCAGGAGA

6841 ATTGCTTGAA CCCGGGAGGC GGAAGTTGCA GTGAGCCAAG ATCGTGGCCA CTGCACTCCA
6901 GCCTGGGTGA CATAGTGAGA TTCTGTCTCA AAAAAAATAA AAGAAATTTA AAAAATCACT
6961 CTCTTCCAAA GATAGATAAA TAAGACAGCA GATATACTAA GGAATAACCT CACCAACTTG
7021 TCATTGACTG ACATGATTTC TTTTGGCCCA CTTGGCCAGC TAGTCTGGTT TGGTTTCTG
7081 GAAATGAAAG AAATAATCAG AGTTAATGA CAGAGAGCGT GAGACCCAGA AAGACAAAAG
7141 TAGATGAGGT AAGTCTCTTG AGCGAGACTT CTAGGGATGG GAAATTTGTG GTGATTGATA
7201 TGAATGATT TTTCCCTTAT CAGGTTCAG AGGATCGTGT TTATGAAGAA TTAACATAT
7261 ATTCAGCTAC TTACAGTGAG TTGGAAGACC CAGGGGAAAT GTCTCCTCCC ATTGATTAT
7321 AAGAATCAG TGTCAGAAC ACTCTGATTC ACAGCCAAGG ATCCAGAAGG CCAAGGTTTT
7381 GTTAAGGGGC TACTGGAAAA ATTTCTATTC TCTCCACAGC CTGCTGGTTT TACATTAGAT
7441 TTATTCGCTT GATAAGAATA TTTTGTCTCT GCTGCTTCTG TCCACCTTAA TATGCTCCTT
7501 CTATTTGTAG ATATGATAGA CTCTATTTT TCTTGTTTTA TATTATGACC ACACACATCT
7561 CTGCTGGAAG GTCAACATGT AGTAAGCAAG ATTTAACTGT TTGATTATAA CTGTGCAAAAT
7621 ACAGAAAAAA AGAAGGCTGG CTGAAAGTTG AGTTAACTT TGACAGTTTG ATAATATTG
7681 GTTCTTAGGG TTTTTTTTTT TTTTAGCATT CTTAATAGTT ACAGTTGGGC ATGATTGTGA
7741 CCATCCACCC ATACCCACAC AGTCACAGTC ACACACACAT ATGTATTACT TACACTATAT
7801 ATAACTTCCT ATGCAAAATAT TTTACCACCA GTCAATAATA CATTTTTGCC AAGACATGAA
7861 GTTTTATAAA GATCTGTATA ATTGCCTGAA TCACCAGCAC ATTCAGTAC ATGATATTAT
7921 TTGCAGATTG ACAAGTAGGA AGTGGGGAAC TTTTATTAA TACTCGTTG TCTGGGGAGG
7981 TAAATAGGTT AAAAACAGGG AAATTATAAG TGCAAGAGAT AACATTTTAC AAATGTTTAG
8041 TGAACCAATT GTGAAAAAAG AAGACTAAAT TAAGACCTGA GCTGAAATAA AGTGACGTGG
8101 AAATGGAAAT ATGGTTTATA TCTAAAACAT GTAGAAAAAG AGTAACTGGT AGATTTTGT
8161 AACAAATTAA AGAATAAAGT TAGACAAGCA ACTGGTTGAC TAATACATTA AGCGTTTGAG
8221 TCTAAGATGA AAGGAGAACA CTGGTTATGT TGATAGAAATG ATAAAAAGGG TCGGGCGCGG
8281 AGGCTCACGC CTGTAATCCC AGCCCTTTGG GAGGCCGAGG TGGGCAGATC ACGAAGTCAG
8341 TAGTTTGAGA CCAGCCTGGC CAACATAGTG AAACCCCGTC TCTACTAAAA ATACAAAAAA
8401 AAAATTAGCT GGGTGTGGTG GCAGTCACCT GTAGTCCCAG CTACTTGGGA GGATGAGGCA
8461 GGAGAATCGC TTGAACCTGG GAGGCCGAGG TTGCAGTGAG CCGAGATCGC ACCAGTGCAC
8521 TCCAGCCTTG GTGACAATGG GAGACTCCAT CTCAAAAAAA AAAAAAAGATA
8581 AAAAGTCAGA AATCTGAAAA GTGGAGGAAG AGTACAAATA GACCTAAATT AAGTCTCATT
8641 TTTTGGCTTT GATTTTGGGG AGACAAAGGG AAATGCAGCC ATAGAGGGCC TGATGACATC
8701 CAATACATGA GTTCTGGTAA AGATAAAATT TGATACACGG TTTGGTGTCA TTATAAGAGA
8761 AATCATTATT AAATGAAGCA AGTTAACTCT CTAAGAGAAT TATTTTGA TAGAAGTGAA
8821 GCTAAGCTAA ACTTCACATG CCTATAATTG GAGGGAAAAA CTAAGGATAA AATCTAGCCT
8881 AGAAGATACA ATAATTAGTC ATAAACATGC ATTGTGAAAC TGTAGAGAGC AGGTAGCCCA
8941 AAATGAGAA AGATTAGATA AAGAGAAAT AAGTATCCAT CAGAGACAGT ATCTCTAGGC
9001 TTGGGCAAGA GAAAAGTCCA CAGTGATAAG CAACTCCACC TAAGGCATGA ATATGCGGCA
9061 GAGAAAACAG CAATAGTGAA TGAATGCAAA AGTGCTGAG CAAATTCAC ACATGAGTAT
9121 TGTGCATGAG TAAATGAATA AAACATTTGC AAAGACCTTT AGAGAAAGAG AATGGGAGCA
9181 TATGTGCGAA ATAAGATAGT TGATTATGAA TAGAAGGTAG TGAAGAAAAG CAAGCTAAGA
9241 AAAAATTTCT TTTATAAAGT AAGGAAAAGA TAGTTTATGT TTTTAGCCTA AGTATAAGAG
9301 TCCTACAGAT GGACTGAAAA AAATCAGTCT GAGAGTATTA GTCACAATTA ATGAAATAAT
9361 TACATTTTAT GTATTGAGGA TGCCAAGATT AAAAGGTGAC AGGTAGATGT TAATTTCCCT
9421 AGATTGTGAA AGTGATCAGC ACAATCACAC AACAAATAAT TAAGTGACTT GGTATGCTTT
9481 ATTTAATTGT AGGGCCTGAG GTTTTCCATT CTCATTTTTC TAAAATACAA TTTTGTCTT
9541 CCAAATTTGA CAGCAGAATA AAAACCTTAC CCTTTCAGT TGTATCATGC TAAGCTGCAT
9601 CTCTACTCTT GATCATCTGT AGGTATTAAT CACATCACTT CCATGGCATG GATGTTTACA
9661 TACAGACTCT TAACCCTGGT TTACCAGGAC CTCTAGGAGT GGATCCAATC TATATCTTTA
9721 CAGTTGTATA GTATATGATA TCTCTTTTAT TTTACTCAAT TTATATTTTC ATCATTGACT
9781 ACATATTTCT TATACACAAC ACACAATTTA TGAATTTTTT CTCAGATCA TTTCTGAGAGT
9841 TGCCCCACCC TACCTGCCTT TTATAGTACG CCCACCTCAG GCAGACACAG AGCACAATGC
9901 TGGGGTTCTC TTCACACTAT CACTGCCCCA AATTGTCTTT CTAAATTTCA ACTTCAATGT
9961 CATCTTCTCC ATGAAGACCA CTGAATGAAC ACCTTTTCAT CCAGCCTTAA TTTCTTGCTC
10021 CATAACTACT CTATCCCACG ATGCAGTATT GTATCATTA TATTAGTGT GCTTGTGACC
10081 TCCTTATGTA TTTCTCAATTA CCGTATTTTG TGCAATAAAT TGGAAATATG TAACTTGATT
10141 TCTTATCTGT GTTTGTGTTG GCATGCAAGA TTTAGGTACT TATCAAGATA ATGGGGAATT
10201 AAGGCATCAA TAAATGATG CCAAAGACCA AGAGCAGTTT CTGAAGTCCT CCTTTTCATC
10261 AGCTCTTTAT CAAACAGAAC ACTCTATAAA CAACCCATAG CCAGAAAACA GGATGTAGGA
10321 ACAATCACCA GCACACTCTA TAAACAACCC ATAGCCAGAA AACAGAAATG AAGGACAATC
10381 ACCAGCCATC TTTTGTCAAT AATTGATGGA ATAGAGTTGA AAGGAACTGG AGCATGATC
10441 ATATTTGACC AGTCAGTCTT CACTCTTATT TACTTGCTAT GTAACTTGA GAAAGCTTTT
10501 TTCTCTTTGT GAACCTCAGG TTTTACATCT GAAAATGAGA AATTTGGAAC AAAAGATTCC

10561 TAACTGGTCT TTCTGTTCCC ATATTCTGTG ATTTTTCAT ATTTAGGATT TTTGGTAATC
 10621 ACAATTACTT AGTTTGTGGT TGAGATAGCA ACACGAATCA GAACTATTG GTGGACATAT
 10681 TTTCAAAGGA GTAGCTCTCC ACTTTGGGTA AAGAAGTGAT GCNNGTCGTG GTGGCTCACG
 10741 CCTGTAATCC CAGCACTTTA GGGAGGCCAA GCGGGGTGGA TCACGAGGTC AGGAGATCGA
 10801 GACCATCCTG GCTAACACGG TGAAACCCCG TCTCTACTAA AAAATACAAA AAATTAGCCA
 10861 GCGGTGGTGG CCGGCGCCTG TAGTCCCACG TACTCGGGAG GCTGAGGCAG GAGAATGGCA
 10921 TGAACCAAGG AGCGGAGCT TGCCGTGAGC CGAGATAGCG CCACTGCAGT CCCTCCTGGG
 10981 CAAAAGAGCA AGACTGCGTC TCAAAAAAAA AAAAAAAGAA GTGTGTGGAG
 11041 TAGCAGGACA CCTGCAACAA TAATATTTT CTAAATCCCT CTGAAAAATG CTAATCAAAG
 11101 GGTTTTTTTC CTAATAATG TCTTAGAAAT AAAATTTCCC CTTTGGGAGA CCGAGGCTGG
 11161 CAGATCACGA GGTGAGGAGA TAGAGACCAC GGTGAAACCC CGTCTCTACT AAAAATACTA
 11221 AAAATTAGCC GGGNGTGGT GGTGGGTACA CCGTAGTCC CAGCTACTTG GAGGCTGAGG
 11281 CTGGAGAATC ACGTGAAC

(2) INFORMATION FOR SEQ ID NO:2506:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1291 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2506:

1 CATATGTATG GGAATACTGT ATTTTCAGGCA TTATAAGGAA TGAAATTATA GGCCGGGCAT
 61 TGTGGCTAAC CCTTGTAATC CTAGCACTTT GAGAGGCTGA AGTGGGCAGA TCACTTGAGC
 121 TTCAGAGTTC GAGACCAGCA TGGACAACAT GGTGAAACCC AGTCTCTACC AAAAACACAA
 181 AAATATTAGC TGGGTGTGGT GGTGCATGCC TGTAGTCCCA GCTACTCAGG AGGCTGAGGT
 241 GGAGGATCG CTGAGCCTG GGAGGCAGAA GTTGCAATGA GCAGAGATCG TGCCACTCCG
 301 CTCCAGTCTT GGTGACAGAA TGAGACTCCA TCTCAAAAAT AAATAAATAA ATAAATAAAA
 361 TAAATGAAAT GAAATTATAA GAAATTACCA CTTTTTCATG TAAGAAGTGA TCATTTCCAT
 421 TATAAGGGAA GGAATTTAAT CCTACCTGCC ATTCCACCAA AGCTTACCTA GTGCTAAAGG
 481 ATGAGGTGTT AGTAAGACCA ACATCTCAGA GGCCTCTCTG TGCCAATAGC CTTCTTCTCT
 541 TTCCCTTCCA AAAACCTCAA GTGACTAGTT CAGAGGCCTG TCTGGAATAA TGGCATCATC
 601 TAATATCACT GGCCTTCTGG AACCTGGGCA TTTTCCAGTG TGTTCATAC TGTCAATATT
 661 CCCCAGCTT CTGGACTCC TGTCAACAGC TGGAAAAGTG AGAGGATGGA CAGGGATTAA
 721 CCAGAGAGCT CCTGCTGAG GAAAAAATCT CCCAGATGCT GAAAGTGAGG CCATGTGGCT
 781 TGGCCAAATA AAACCTGGCT CCGTGGTGCC TCTGTCTTAG CAGCCACCCT GCTGATGAAC
 841 TGCCACCTTG GACTTGGGAC CAGAAAGAGG TGGGTGAGG GAAGAGGCAC CACACAGAGT
 901 GATGTAACAG CAAGATCAGG TCACCCACAG GCCCTGGCAG TCACAGTCAT AAATTAGCTA
 961 ACTGTACACA AGCTGGGGAC ACTCCCTTGT GAAACCAAAA AAAAAAAGAA AAAAAAGAGA
 1021 CCTTTATGCA AAAACAATC TCTGGATGGC ATGGGGTGAG TATAAATACT TCTTGGCTGC
 1081 CAGTGTGTTC ATAACCTTGT AGCGAGTCGA AAAGTGGGC TCCGGCCGCA GAGAACTCAG
 1141 CTTCACTTCT GCTTTAAAT CTCTCGGCCA CCTTTGATGA GGGGACTGGG CAGTTCTAGA
 1201 CAGTCCCGAA GTTCTCAAGG CACAGGTCTC TTCCTGGTTT GACTGTCTCT ACCCCGGGGA
 1261 GGCAGTGCGA CAGCTGCAA GGTGAGTTGC C

(2) INFORMATION FOR SEQ ID NO:2507:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4145 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2507:

1 CTGCTTTAAA ATCTCTCGGC CACCTTTGAT GAGGGGACTG GGCAGTTCTA GACAGTCCCG
 61 AAGTTCTCAA GGCACAGGTC TCTTCTGGT TTGACTGTCC TTACCCCGGG GAGGCAGTGC
 121 AGCCAGCTGC AAGCCCCACA GTGAAGAACA TCTGAGCTCA AATCCAGATA AGTGACATAA
 181 GTGACCTGCT TTGTAAAGCC ATAGAGATGG CCTGTCCTTG GAAATTTCTG TTCAAGACCA
 241 AATTCCACCA GTATGCAATG AATGGGGAAA AAGACATCAA CAACAATGTG GAGAAAGCCC
 301 CCTGTGCCAC CTCCAGTCCA GTGACACAGG ATGACCTTCA GTATCACAAC CTCAGCAAGC
 361 AGCAGATGTA GTCCCCGAG CCCTCGTGG AGACGGGAAA GAAGTCTCCA GAATCTCTGG
 421 TCAAGCTGGA TGCAACCCCA TTGTCTCTCC CACGGCATGT GAGGATCAAA AACTGGGGCA
 481 GCGGATGAC TTTCCAAGAC ACTTTCACC ATAAGGCCAA AGGGATTTTA ACTTGCAGGT
 541 CCAAATCTTG CTTGGGTGCC ATTATGACTC CCAAAAGTTT GACCAGAGGA CCCAGGACA
 601 AGCCTACCCC TCCAGATGAG CTTCTACCTC AAGCTATCGA ATTTGTCAAC CAATATTACG
 661 GTCCTTCAA AGAGGCCAAA ATAGAGGAAC ATCTGGCCAG GGTGGAAGCG GTAACAAAGG

721 AGATAGAAAC AACAGGAACC TACCAACTGA CGGGAGATGA GCTCATCTTC GCCACCAAGC
 781 AGGCCTGGCG CAATGCCCCA CGCTGCATTG GGAGGATCCA GTGGTCCAAC CTGCAGGTCT
 841 TCGATGCCCG CAGCTGTTC ACTGCCCGG AAATGTTTGA ACACATCTGC AGACACGTGC
 901 GTTACTCCAC CAACAATGGC AACATCAGGT CGGCCATCAC CGTGTTCCTC CAGCGGAGTG
 961 ATGGCAAGCA CGACTTCCGG GTGTGGAATG CTCAGCTCAT CCGCTATGCT GGCTACCAGA
 1021 TGCCAGATGG CAGCATCAGA GGGGACCCTG CCAACGTGGA ATTCACCTAG CTGTGCATCG
 1081 ACCTGGGCTG GAAGCCCAAG TACGGCCGCT TCGATGTGGT CCCCCTGGTC CTGCAGGCCA
 1141 ATGGCCGTGA CCCTGAGCTC TTCGAAATCC CACCTGACCT TGTGCTTGAG GTGGCCATGG
 1201 AACATCCCAA ATACGAGTGG TTTCGGGAAC TGGAGCTAAA GTGGTACGCC CTGCCATGCG
 1261 TGGCCAACAT GCTGCTTGAG GTGGCGGCC TGGAGTTCCT AGGGTGCCCC TTCATATGGT
 1321 GGTACATGGG CACAGAGATC GGAGTCCGGG ACTTCTGTGA CGTCCAGCGC TACAACATCC
 1381 TGGAGGAAGT GGGCAGGAGA ATGGGCTGG AAACGCACAA GCTGGCCTCG CTCTGGAAAG
 1441 ACCAGGCTGT CGTTGAGATC AACATTGCTG TGATCCATAG TTTTCAGAAG CAGAAATGTGA
 1501 CCATCATGGA CCACCACTCG GCTGCAGAAT CCTTCATGAA GTACATGCAG AATGAATACC
 1561 GGTCCCGTGG GGGCTGCCCG GCAGACTGGA TTTGGCTGGT CCCTCCCATG TCTGGGAGCA
 1621 TCACCCCGCT GTTTCACCA GAGATGCTGA ACTACGCTCT GTCCCTTTTC TACTACTATC
 1681 AGGTAGAGGC CTGGAACCA CATGTCTGGC AGGACGAGAA GCGGAGACCC AAGAGAAGAG
 1741 AGATTCCATT GAAAGTCTTG GTCAAAGCTG TGCTCTTTGC CTGTATGCTG ATGCGCAAGA
 1801 CAATGGCGTC CCGAGTCAGA GTCACCATCC TCTTTGCGAC AGAGACAGGA AAATCAGAGG
 1861 CGCTGGCCTG GGACCTGGGG GCCTTATTCA GCTGTGCTT CAACCCCAAG GTTGTCTGCA
 1921 TGGATAAGTA CAGGCTGAGC TGCTTGGAG AGGAACGGCT GCTGTGGTGT GTGACCAATA
 1981 CGTTTGGCAA TGGAGACTGC CCTGGCAATG GAGAGAACT GAAGAAATCG CTCTTCATGC
 2041 TGAAAGAGCT CAACAACAAA TTCAGGTACG CTGTGTTTGG CCTCGGCTCC AGCATGTACC
 2101 CTCGGTTCTG CGCCTTTGCT CATGACATTG ATCAGAAGCT GTCCACCTG GGGGCTCTCT
 2161 AGCTCACCCC GATGGGAGAA GGGGATGAGC TCAGTGGGCA GGAGGACGCC TTCCGCAGCT
 2221 GGGCCGTGCA AACCTTCAAG GCAGCCTGTG AGACGTTTGA TGTCCGAGGC AAACAGCACA
 2281 TTCAGATCCC CAAGCTCTAC ACCTCCAATG TGACCTGGGA CCGCACACCAC TACAGGCTCG
 2341 TGCAGGACTC ACAGCCTTTG GACCTCAGCA AAGCCCTCAG CAGCATGCAT GCCAAGAACG
 2401 TGTTCACCAT GAGGCTCAAA TCTCGGCAGA ATCTACAAAG TCCGACATCC AGCCGTGCCA
 2461 CCATCCTGGT GGAACCTCTC TGTGAGGATG GCCAAGGCCT GAACTACCTG CCGGGGGAGC
 2521 ACCCTGGGGT TTGCCCAGGC AACCAAGCCG CCCTGGTCCA AGGCATCCTG GAGCGAGTGG
 2581 TGGATGGCCC CACACCCAC CAGACAGTGC GCCTGGAGGA CCTGGATGAG AGTGGCAGCT
 2641 ACTGGGTGAG TGACAAGAGG CTGCCCCCT GCTCACTCAG CCAGGCCCTC ACCTACTCCC
 2701 CGGACATCAC CACACCCCA ACCCAGCTGC TGCTCCAAAA GCTGGCCCAG GTGGCCACAG
 2761 AAGAGCCTGA GAGACAGAG CTGGAGGCC TGTCAGGCC CTCAGAGTAC AGCAAGTGGA
 2821 AGTTACACCA CAGCCCCACA TTCTTGGAGG TGCTAGAGGA GTTCCCGTCC CTGCGGGTGT
 2881 CTGCTGGCTT CCTGCTTTCC CAGCTCCCCA TTCTGAAGCC CAGGTTCTAC TCCATCAGCT
 2941 CCTCCCGGGA TCACACGCCC ACGGAGATCC ACCTGACTGT GGCCGTGGTC ACCTACCACA
 3001 CCGGAGATGG CCAGGGTCCC CTGCACCACG GTGTCTGCAG CACATGGCTC AACAGCCTGA
 3061 AGCCCCAAGA CCCAGTGCCC TGCTTTGTGC GGAATGCCAG CGCCTTCCAC TCCCCGAGG
 3121 ATCCCTCCCA TCCTTGCAAT CTCATCGGGC CTGGCACAGG CATCGTGCCC TTCCGCAGTT
 3181 TCTGGCAGCA ACGGCTCCAT GACTCCAGC ACAAGGGAGT GCGGGGAGGC CGCATGACCT
 3241 TGGTGTGTTG GTGCCGCCG CCAGATGAGG ACCACATCTA CCAGGAGGAG ATGCTGGAGA
 3301 TGGCCAGAAA GGGGGTGCTG CATGCGGTGC ACACAGCCTA TTCCCGCCTG CCTGGCAAGC
 3361 CCAAGGTCTA TGTTCAAGAC ATCCTGCGGC AGCAGCTGGC CAGCGAGGTG CTCCGTGTGC
 3421 TCCACAAGGA GCCAGGCCAC CTCTATGTTT GCGGGGATGT GCGCATGGCC CGGAGCTGG
 3481 CCCACACCCT GAAGCAGCTG GTGGCTGCCA AGCTGAAAT GAATGAGGAG CAGGTCGAGG
 3541 ACTATTTCTT TCAGCTCAAG AGCCAGAAGC GCTATCACGA AGATATCTTC GGTGCTGTAT
 3601 TTCTTACGA GCGGAAGAAG GACAGGGTGG CGGTGCAGCC CAGCAGCCTG GAGATGTCAG
 3661 CGTCTGAGG GCCTACAGGA GGGGTTAAAG CTGCCGGCAC AGAACTTAAG GATGGAGCCA
 3721 GCTCTGCATT ATCTGAGGTC ACAGGGCCTG GGGAGATGGA GGAAGTGAT ATCCCCAGC
 3781 CTCAAGTCTT ATTTCTCAA CGTTGCTCCC CATCAAGCCC TTTACTTGAC CTCCTAACAA
 3841 GTAGCACCTT GGATTGATCG GAGCCTCCTC TCTCAAATG GGGCCTCCCT GGTCCCTTGG
 3901 AGACAAAATC TTAATGCCA GGCCTGGCGA GTGGGTGAAA GATGGAACTT GCTGCTGAGT
 3961 GCACCACTTC AAGTGACCAC CAGGAGGTGC TATCGCACCA CTGTGTATTT AACTGCCTTG
 4021 TGTACAGTTA TTTATGCCTC TGTATTTAAA AAATAACAC CCAGTCTGTT CCCCATGGCC
 4081 ACTTGGGTCT TCCCTGTATG ATTCCTTGAT GGAGATATTT ACATGAATTG CATTTTACTT
 4141 TAATC

- (2) INFORMATION FOR SEQ ID NO:2508:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4077 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2508:

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1 GAATTCAC TCTGCTGCCT GCTCCAGCAG ACGGACGCAC AGTAACATGG GCAACTTGAA
61 GAGCGTGGCC CAGGAGCCTG GGCCACCCTG CGGCCTGGGG CTGGGGCTGG GCCTTGGGCT
121 GTGCGGCAAG CAGGGCCAG CCACCCGGGC CCCTGAGCCC AGCCGGGCCC CAGCATCCCT
181 ACTCCACCA GCGCCAGAAC ACAGCCCCCG GAGCTCCCCG CTAACCCAGC CCCCAGAGGG
241 GCCCAAGTTC CCTCGTGTA AGAAGTGGGA GGTGGGGAGC ATCACCTATG ACACCCTCAG
301 CGCCAGGCG CAGCAGGATG GGCCCTGCAC CCCAAGACGC TGCCTGGGCT CCCTGGTATT
361 TCCACGAAA CTACAGGGCC GGCCCTCCCC CGGCCCCCGG GCCCCTGAGC AGCTGCTGAG
421 TCAGGCCCCG GACTTCATCA ACCAGTACTA CAGCTCCATT AAGAGGAGCG GCTCCCAGGC
481 CCACGAACAG CGGCTCAAG AGGTGGAAGC CGAGGTGGCA GCCACAGGCA CCTACCAGCT
541 TAGGGAGAGC GAGCTGGTGT TCGGGGCTAA GCAGGCTTGG CGCAACGCTC CCCGCTGCGT
601 GGGCCGGATC CAGTGGGGGA AGTGCAGGT GTTCGATGCC CGGGACTGCA GGTCTGCACA
661 GGAAATGTTT ACCTACATCT GCAACCACAT CAAGTATGCC ACCAACCAGG GCAACCTTCG
721 CTCGGCCATC ACAGTGTTC CGCAGCGCTG CCCTGGCCGA GGAGACTTCC GAATCTGGAA
781 CAGCGAGCTG GTGCGCTACG CGGGCTACCG GCAGCAGGAC GGCTCTGTGC GGGGGGACCC
841 AGCCAACGTG GAGATCACCG AGCTCTGCAT TCAGCACGGC TGGACCCAG GAAACGGTGC
901 CTTGAGAGTG TGCCCCCTGC TGCTGCAGGC CCCAGATGAG CCCCAGAAC TCTTCTTCT
961 GCCCCCGGAG CTGGTCTTGG AGGTGCCCTT GGAGCACCCC ACGCTGGAGT GGTTCGAGC
1021 CCTGGGCTG CGCTGGTACG CCCTCCCGGC AGTGTCCAAC ATGCTGCTGG AAATTGGGGG
1081 CCTGGAGTTC CCCGAGCCCC CCTTCAGTGG CTGGTACATG AGCACTGAGA TCGGCACGAG
1141 GAACCTGTGT GACCTCACC GCTACAACAT CCTGGAGGAT GTGGCTGTCT GCATGGACCT
1201 GGATACCCGG ACCACTCTCG CCTGTGGAA AGACAAGCA GCAGTGGAAA TCAACGTGGC
1261 CGTGCTGCAC AGTTACCAGC TAGCCAAAGT CACCATCGTG GACCACCAG CCGCCACGGC
1321 CTCTTTCATG AAGCACCTGG AGAATGAGCA GAAGGCCAGG GGGGGCTGCC CTGCAGACTG
1381 GGCTGAGATC GTGCCCCCA TCTCGGGCAG CCTCACTCCT GTTTTCCATC AGGAGATGGT
1441 CAACTATTTC CTGTCCCCGG CCTTCCGCTA CCAGCCAGAC CCCTGGAAGG GGAGTGCCGC
1501 CAAGGGCACC GGCATCACCA GGAAGAAGAC CTTTAAAGAA GTGGCCAACG CCGTGAAGAT
1561 CTCCGCTCG CTCATGGGCA CGGTGATGGC GAAGCGAGTG AAGGCGACAA TCCTGTATGG
1621 CTCCGAGACC GGCCGGGCCC AGAGTACGC ACAGCAGCTG GGGAGACTCT TCCGGAAGGC
1681 TTTTGATCCC CGGGTCTGT GTATGGATGA GTATGACGTG GTGTCCCTCG AACACGAGAC
1741 GCTGGTGTCT GTGGTAACCA GCACATTGG GAATGGGGAT CCCCAGGAGA ATGGAGAGAG
1801 CTTTGCAGCT GCCCTGATGG AGATGTCCGG CCCCTACAAC AGCTCCCTC GGCCGGAACA
1861 GCACAAGAGT TATAAGATCC GCTTCAACAG CATCTCCTGC TCAGACCCAC TGGTGTCTCT
1921 TTGGCGGCGG AAGAGGAAGG AGTCCAGTAA CACAGACAGT GCAGGGGCCC TGGGCACCTT
1981 CAGGTTCTGT GTGTTGCGGC TCGGCTCCCG GGCATACCCC CACTTCTGCG CCTTTGCTCG
2041 TGCCGTGGAC ACACGGCTGG AGGAAGTGGG CGGGGAGCGG CTGCTGCAGC TGGGCCAGGG
2101 CGACGAGCTC TGCGCCAGG AGGAGGCTT CCGAGGCTGG GCCCAGGCTG CCTTCAGGC
2161 CGCTGTGAG ACCTTCTGTG TGGGAGAGGA TGCCAAGGCC GCGGCCGAG ACATCTTCAG
2221 CCCCAAACGG AGCTGGAAGC GCCAGAGGTA CCGGCTGAGC GCCCAGGCCG AGGGCTGCA
2281 GTTGCTGCCA GGTCTGATCC ACGTGCACAG GCGGAAGATG TTCCAGGCTA CAATCCGCTC
2341 AGTGGAAGAA CTGCAAAGCA GCAAGTCCAC GAGGGCCACC ATCCTGTGTC GCCTGGACAC
2401 CGGAGGCCAG GAGGGCTGTC AGTACCAGCC GGGGGACCAC ATAGGTGTCT GCCCGCCAA
2461 CCGGCCCGGC CTTGTGGAGG CGTGCTGAG CCGCTGGAG GACCCGCCG CGCCACTGA
2521 GCCCGTGGCA GTAGAGCAGC TGGAGAAGGG CAGCCCTGGT GGCCCTCCCC CCGGCTGGGT
2581 GCGGGACCCC CGGCTGCCCC CGTGACGCT GCGCCAGGCT CTCACCTTCT TCCTGGACAT
2641 CACTCCCCCA CCCAGCCCTC AGCTCTTGGC GCTGCTCAGC ACCTTGGCAG AAGAGCCAG
2701 GGAACAGCAG GAGCTGGAGG CCTCAGCCA GGATCCCCGA CGCTACGAGG AGTGAAGTG
2761 GTTCCGCTGC CCCACGCTGC TGGAGGTGCT GGAGCAGTTC CCGTCGGTGG CGCTGCCTGC
2821 CCCACTGTCT CTCACCCAGC TGCTCTGCT CCAGCCCCG TACTACTCAG TCAGCTCGGC
2881 ACCCAGCACC CACCCAGGAG AGATCCACCT CACTGTAGCT GTGCTGGCAT ACAGGACTCA
2941 GGATGGGCTG GGGCCCTGCT ACTATGGAGT CTGCTCCACG TGGCTAAGCC AGCTCAAGCC
3001 CGGAGACCCT GTGCCCTGCT TCATCCGGGG GGCTCCCTCC TTCCGGCTGC CACCCGATCC
3061 CAGCTTGCCC TGCATCCTGG TGGGTCCAGG CACTGGCATT GCCCCCTTCC GGGGATCTG
3121 GCAGGAGCGG CTGCATGACA TTGAGAGCAA AGGGCTGCAG CCCACTCCCA TGACTTTGGT
3181 GTTCGGCTGC CGATGCTCCC AACTTGACCA TCTCTACCG GACGAGGTGC AGAACGCCCC
3241 GCAGCGCGGG GTGTTGGGCC GAGTCTCAC CGCCTTCTCC CGGGAACCTG ACAACCCAA
3301 GACCTACGTG CAGGACATCC TGAGGACGGA GCTGGCTGCG GAGGTGCACC GCGTGTGTG
3361 CCTCGAGCGG GGCCACATGT TTGTCTGCGG CGATGTTACC ATGGCAACCA ACGTCTGCA
3421 GACCGTGACG CGCATCCTGG CGACGGAGGG CGACATGGAG CTGGACGAGG CCGGCGACGT
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3481 CATCGGCGTG CTGCGGGATC AGCAACGCTA CCACGAAGAC ATTTTCGGGC TCACGCTGCG
 3541 CACCCAGGAG GTGACAAGCC GCATACGCAC CCAGAGCTTT TCCTTGACAG AGCGTCAGTT
 3601 GCGGGGCGCA GTGCCCTGGG CGTTCGACCC TCCCGGCTCA GACACCAACA GCCCCTGAGA
 3661 GCGGCTGGC TTTCCCTTCC AGTTCCGGGA GAGCGGCTGC CCGACTCAGG TCCGCCCCGAC
 3721 CAGGATCAGC CCCGCTCCTC CCCTCTGAG GTGGTGCCCT CTCACATCTG TCCAGAGGCT
 3781 GCAAGGATTC AGCATTATTC CTCCAGGAAG GAGCAAAACG CCTCTTTTCC CTCTCTAGGC
 3841 CTGTTGCCCT GGGCCTGGGT CCGCCTTAAT CTGGAAGGCC CCTCCCAGCA GCGGTACCCC
 3901 AGGGCTACT GCCACCCGCT TCCTGTTTCT TAGTCCGAAT GTTAGATTCC TCTTGCCCTCT
 3961 CTCAGGAGTA TCTTACCTGT AAAGTCTAAT CTCTAAATCA AGTATTTATT ATTGAAGATT
 4021 TACCATAAGG GACTGTGCCA GATGTTAGGA GAACTACTAA AGTGCCCTACC CCAGCTC

(2) INFORMATION FOR SEQ ID NO:2509:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9513 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2509:

1 CATATGTATG GGAATACTGT ATTTACGGCA TTATAAGGAA TGAAATTATA GGCCGGGCAT
 61 TGTGGCTAAC CCTTGTAAAT CTAGCACTTT GAGAGGCTGA AGTGGGCAGA TCACTTGAGC
 121 TTCAGAGTTC GAGACCAGCA TGGACAACAT GGTGAAACCC AGTCTCTACC AAAACACAA
 181 AAATATTAGC TGGGTGTGGT GGTGCATGCC TGTAAGTCCC GCTACTCAGG AGGCTGAGGT
 241 GGGAGGATCG CTTGAGCCTG GGAGGCAGAA GTTGCAATGA GCAGAGATCG TGCCACTCCG
 301 CTCCAGTCTT GGTGACAGAA TGAGACTCCA TCTCAAAAAT AAATAAATAA ATAAATAAAA
 361 TAAATGAAAT GAAATTATAA GAAATTACCA CTTTTTCATG TAAGAAGTGA TCATTTCCAT
 421 TATAAGGGAA GGAATTTAAT CCTACCTGCC ATTCCACCAA AGCTTACCTA GTGCTAAAGG
 481 ATGAGGTGTT AGTAAGACCA ACATCTCAGA GGCCTCTCTG TGCCAATAGC CTTCTTCTCT
 541 TTCCCTTCCA AAAACCTCAA GTGACTAGTT CAGAGGCCTG TCTGGAATAA TGGCATCATC
 601 TAATATCACT GGCCTTCTGG AACCTGGGCA TTTTCCAGTG TGTTCCATAC TGTCAATATT
 661 CCCCCAGCTT CCTGGACTCC TGTCACAAGC TGGAAAAGTG AGAGGATGGA CAGGGATTAA
 721 CCAGAGAGCT CCCTGCTGAG GAAAAATCT CCCAGATGCT GAAAGTGAGG CCATGTGGCT
 781 TGGCCAAATA AAACCTGGCT CCGTGGTGCC TCTGTCTTAG CAGCCACCTT GCTGATGAAC
 841 TGCCACCTTG GACTTGGGAC CAGAAAGAGG TGGGTTGGGT GAAGAGGCAC CACACAGAGT
 901 GATGTAACAG CAAGATCAGG TCACCCACAG GCCCTGGCAG TCACAGTCAT AAATTAGCTA
 961 ACTGTACACA AGCTGGGAC ACTCCCTTTG GAAACCAAAA AAAAAAAAAA AAAAAAGAGA
 1021 CCTTTATGCA AAAACAACCT TCTGGATGGC ATGGGGTGAG TATAAATACT TCTTGGCTGC
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 1141 CCTCATTTCT GCTTTAAAT CTCTCGGCCA CCTTTGATGA GGGGACTGGG CAGTTCTAGA
 1201 CAGTCCCGAA GTTCTCAAGG CACAGGTCTC TTCCTGGTTT GACTGTCTTT ACCCCGGGGA
 1261 GGCAGTGCAG CCAGCTGCAA GGTGAGTTGC C
 1 CTGCTTTAAA ATCTCTCGGC CACCTTTGAT GAGGGGACTG GGCAGTTCTA GACAGTCCCC
 61 AAGTTCTCAA GGCACAGGTC TCTTCTGGT TTGACTGTCC TTACCCCGGG GAGGCAGTGC
 121 AGCCAGCTGG AAGCCCCACA GTGAAGAACA TCTGAGCTCA AATCCAGATA AGTGACATAA
 181 GTGACCTGCT TTGTAAAGCC ATAGAGATGG CCTGTCTTGG GAAATTTCTG TTCAAGACCA
 241 AATTCCACCA GTATGCAATG AATGGGAAA AAGACATCAA CAACAATGTG GAGAAAGCCC
 301 CCTGTGCCAC CTCCAGTCCA GTGACACAGG ATGACCTTCA GTATCACAA CTCAGCAAGC
 361 AGCAGAATGA GTCCCCGAG CCCCTCGTGG AGACGGGAAA GAAGTCTCCA GAATCTCTGG
 421 TCAAGCTGGA TGCAACCCCA TTGTCTCCC CACGGCATGT GAGGATCAAA AACTGGGGCA
 481 GCGGGATGAC TTTCCAAGAC ACACCTCACC ATAAGGCCAA AGGGATTTTA ACTTGCAGGT
 541 CCAAATCTTG CCTGGGGTCC ATTATGACTC CAAAAGTTT GACCAGAGGA CCCAGGGACA
 601 AGCCTACCCC TCCAGATGAG CTTCTACCTC AAGCTATCGA ATTTGTCAAC CAATATTACG
 661 GCTCCTTCAA AGAGGCAAAA ATAGAGGAAC ATCTGGCCAG GGTGGAAGCG GTAACAAAGG
 721 AGATAGAAAC AACAGGAACC TACCAACTGA CGGGAGATGA GCTCATCTTC GCCACCAAGC
 781 AGGCCTGGCG CAATGCCCCA CGCTGCATTG GGAGGATCCA GTGGTCCAAC CTGCAGGTCT
 841 TCGATGCCCC CAGCTGTTCC ACTGCCGGG AAATGTTTGA ACACATCTGC AGACACGTGC
 901 GTTACTCCAC CAACAATGGC AACATCAGGT CGGCCATCAC CGTGTTCCTC CAGCGGAGTG
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 1021 TGCCAGATGG CAGCATCAGA GGGGACCTTG CCAACGTGGA ATTCACCTAG CTGTGCATCG
 1081 ACCTGGGCTG GAAGCCCAAG TACGGCCGCT TCGATGTGGT CCCCCTGGTC CTGCAGGCCA
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 1201 AACATCCCAA ATACGAGTGG TTTCGGGAAC TGGAGCTAAA GTGGTACGCC CTGCCTGCAG
 1261 TGGCCAACAT GCTGCTTGAG GTGGCGGCC TGGAGTTCCC AGGGTGCCCC TTCAATGGCT

1321 GGTACATGGG CACAGAGATC GGAGTCCGGG ACTTCTGTGA CGTCCAGCGC TACAACATCC
1381 TGGAGGAAGT GGGCAGGAGA ATGGGCCTGG AAACGCACAA GCTGGCCTCG CTCTGGAAAG
1441 ACCAGGCTGT CGTTGAGATC AACATTGCTG TGATCCATAG TTTTCAGAA GAGAATGTGA
1501 CCATCATGGA CCACCACTCG GCTGCAGAAT CCTTCATGAA GTACATGCAG AATGAATACC
1561 GGTCCCGTGG GGGCTGCCCG GCAGACTGGA TTTGGCTGGT CCCTCCCATG TCTGGGAGCA
1621 TCACCCCGGT GTTTCACCA GAGATGCTGA ACTACGTCCT GTCCCTTTTC TACTACTATC
1681 AGGTAGAGGC CTGGAAAACC CATGTCTGGC AGGACGAGAA GCGGAGACCC AAGAGAAGAG
1741 AGATTCCATT GAAAGTCTTG GTCAAAGCTG TGCTCTTTGC CTGTATGCTG ATGCGCAAGA
1801 CAATGGCGTC CCGAGTCAGA GTCACCATCC TCTTTGCGAC AGAGACAGGA AAATCAGAGG
1861 CGCTGGCCTG GGACCTGGGG GCCTTATTCA GCTGTGCCTT CAACCCCAAG GTTGTCTGCA
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1981 CGTTTGGCAA TGGAGACTGC CCTGGCAATG GAGAGAACTG GAAGAAATCG CTCTTCATGC
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2101 CTCGGTTCTG CGCCTTTGCT CATGACATTG ATCAGAAGCT GTCCCACCTG GGGGCCTCTC
2161 AGCTACCCCC GATGGGAGAA GGGGATGAGC TCAGTGGGCA GGAGGACGCC TTCCCGAGCT
2221 GGGCCGTGCA AACCTTCAAG GCAGCCTGTG AGACGTTTGA TGTCCGAGGC AAACAGCACA
2281 TTCAGATCCC CAAGCTCTAC ACCTCCAATG TGACCTGGGA CCCGCACCAT TACAGGCTCG
2341 TGCAGGACTC ACAGCCTTTG GACCTCAGCA AAGCCCTCAG CAGCATGCAT GCCAAGAACG
2401 TGTTCACCAT GAGGCTCAAA TCTCGGCAGA ATCTACAAAG TCCGACATCC AGCCGTGCCA
2461 CCATCCTGGT GGAATCTCTC TGTGAGGATG GCCAAGGCC TGAATACCTG CCGGGGAGC
2521 ACCTTGGGGT TTGCCAGGC AACCAGCCGG CCCTGGTCCA AGGCATCCTG GAGCGAGTGG
2581 TGGATGGCCC CACACCCAC CAGACAGTGC GCCTGGAGGA CCTGGATGAG AGTGGCAGCT
2641 ACTGGGTCAG TGACAAGAGG CTGCCCCCTT GCTCACTCAG CCAGGCCCTC ACCTACTCCC
2701 CGGACATCAC CACACCCCA ACCCAGCTGC TGCTCCAAA GCTGGCCAG GTGGCCACAG
2761 AAGAGCCTGA GAGACAGAGG CTGGAGGCC TGTGCCAGCC CTCAGAGTAC AGCAAGTGGA
2821 AGTTACCAAA CAGCCCCACA TTCCTGGAGG TGCTAGAGGA GTTCCCGTCC CTGCGGGTGT
2881 CTGCTGGCTT CCGCTTTCC CAGCTCCCCA TTCTGAAGCC CAGGTTCTAC TCCATCAGCT
2941 CCTCCCGGGA TCACACGCCC ACGGAGATCC ACCTGACTGT GGCCGTGGTC ACCTACCACA
3001 CCGGAGATGG CCAGGTCCCC CTGCACCACG GTGTCTGCAG CACATGGCTC AACAGCTGA
3061 AGCCCCAAGA CCCAGTGCCC TGCTTTGTGC GGAATGCCAG CGCCTTCCAC CTCCCCGAGG
3121 ATCCCTCCCC TCCTTGATC CTATCGGGC CTGGCACAGG CATCGTGCCC TTCCGCAATT
3181 TCTGGCAGCA ACCGGCTCCAT GACTCCAGC ACAAGGGAGT GCGGGGAGGC CGCATGACCT
3241 TGGTGTGTTG GTGCCCGGC CCAGATGAGG ACCACATCTA CCAGGAGGAG ATGCTGGAGA
3301 TGGCCAGAA GGGGGTGCTG CATGCGGTGC ACACAGCCTA TTCCCGCTG CCTGGCAAGC
3361 CCAAGGTCTA TGTTCAAGAC ATCTGCGGC AGCAGCTGGC CAGCGAGGTG CTCCGTGTGC
3421 TCCACAAGGA GCCAGGCCAC CTCTATGTTT GCGGGGATGT GCGCATGGCC CGGACGTGG
3481 CCCACACCTT GAAGCAGCTG GTGGCTGCCA AGCTGAAATT GAATGAGGAG CAGGTGAGG
3541 ACTATTCTT TCAGCTCAAG AGCCAGAAGC GCTATCACGA AGATATCTTC GGTGCTGTAT
3601 TTCTTACGA GCGGAAGAAG GACAGGGTGG CGGTGCAGCC CAGCAGCCTG GAGATGTCAG
3661 CGCTCTGAGG GCCTACAGGA GGGGTAAAG CTGCCGGCAC AGAACTTAAG GATGGAGCCA
3721 GCTCTGCATT ATCTGAGGTC ACAGGGCCTG GGGAGATGGA GGAAAGTGAT ATCCCCCAGC
3781 CTCAAGTCTT ATTTCTCAA CGTTGCTCCC CATCAAGCCC TTTACTTGAC CTCCTAACAA
3841 GTAGACCCTT GGATTGATCG GAGCCTCCTC TCTCAAAGT GGGCCTCCCT GGTCCCTTGG
3901 AGACAAAATC TTAATGCGCA GGCCTGGCGA GTGGGTGAAA GATGGAACCT GCTGCTGAGT
3961 GCACCACTTC AAGTGACCAC CAGGAGGTGC TATCGCACCA CTGTGTATTT AACTGCCTTG
4021 TGTACAGTTA TTTATGCCTC TGTATTTAAA AAATAACAC CAGTCTGTTT CCCCATGGCC
4081 ACTTGGGTCT TCCCTGTATG ATTCCTTGAT GGAGATATTT ACATGAATTG CATTTTACTT
4141 TAATC
1 GAATTCCCAC TCTGCTGCCT GCTCCAGCAG ACGGACGCAC AGTAACATGG GCAACTTGAA
61 GAGCGTGGCC CAGGAGCCTG GGCCACCCTG CGGCCTGGGG CTGGGGCTGG GCCTTGGCT
121 GTGCGGCAAG CAGGGCCAG CCACCCCGGC CCCTGAGCCC AGCCGGGCC CAGCATCCCT
181 ACTCCACCA GCGCCAGAAC ACAGCCCCC GAGCTCCCC CTAACCCAGC CCCCAGAGGG
241 GCCCCAAGTT CCTCGTGTGA AGAACTGGGA GGTGGGGAGC ATCACCTATG ACACCTCAG
301 GCGCCAGGCG CAGCAGGATG GGCCCTGCAC CCCAAGACGC TGCCTGGGCT CCCTGGTATT
361 TCCAGGAA CTACAGGGCC GGCCCTCCCC CCGCCCCCG GCCCCGAGC AGCTGCTGAG
421 TCAGGCCCCG GACTTCATCA ACCAGTACTA CAGCTCCATT AAGAGGAGCG GCTCCAGGC
481 CCACGAACAG CGGCTTCAAG AGGTGGAAGC CGAGGTGGCA GCCACAGGCA CCTACCAGCT
541 TAGGAGAGC GAGCTGGTGT TCGGGCTAA GCAGGCTGG CGCAACGCTC CCCGCTGCGT
601 GGGCCGGATC CAGTGGGGGA AGCTGCAGGT GTTCGATGCC CGGGACTGCA GGTCTGCACA
661 GGAATGTTC ACCTACATCT CAAGACACAT CAAGTATGCC ACCAACCAGG GCAACCTTCG
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841 AGCCAACGTG GAGATCACCG AGCTCTGCAT TCAGCACGGC TGGACCCAG GAAACGGTCG
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 1081 CCTGGAGTTC CCCGCAGCCC CCTTCAGTGG CTGGTACATG AGCACTGAGA TCGGCACGAG
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 1261 CGTGCTGCAC AGTTACCAGC TAGCCAAAGT CACCATCGTG GACCACCACG CCGCCACGGC
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 1441 CAACATATTC CTGTCCCCGG CCTTCCGCTA CCAGCCAGAC CCCTGGAAGG GGAGTGCCGC
 1501 CAAGGGCACC GGCATACCA GGAAGAAGAC CTTTAAAGAA GTGGCCAACG CCGTGAAGAT
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 1801 CTTTGCAGCT GCCCTGATGG AGATGTCCGG CCCCTACAAC AGCTCCCTC GCGCGAACA
 1861 GCACAAGAGT TATAAGATCC GCTTCAACAG CATCTCCTGC TCAGACCCAC TGGTGTCTC
 1921 TTGGCGGCGG AAGAGGAAGG AGTCCAGTAA CACAGACAGT GCAGGGGCCC TGGGCACCTT
 1981 CAGGTCTCTGT GTGTTCCGGG TCGGCTCCCG GGCATACCCC CACTTCTGCG CTTTGTCTCG
 2041 TGCCGTGGAC ACACGGCTGG AGGAAGTGGG CGGGGAGCGG CTGCTGCAGC TGGGCCAGGG
 2101 CGACGAGCTG TGCGGCCAGG AGGAGGCCCTT CCGAGGCTGG GCCCAGGCTG CCTTCAGGC
 2161 CGCCTGTGAG ACCTTCTGTG TGGGAGAGGA TGCCAAGGCC GCGGCCGAG ACATCTTCAG
 2221 CCCCAGACCG AGCTGGAAGC GCCAGAGGTA CCGGCTGAGC GCCCAGGCCG AGGGCTGCA
 2281 GTTGCTGCCA GGTCTGATCC ACGTGACAG GCGGAAGATG TTCCAGGCTA CAATCCGCTC
 2341 AGTGGAAAAC CTGCAAAGCA GCAAGTCCAC GAGGGCCACC ATCCTGGTGC GCCTGGACAC
 2401 CGGAGGCCAG GAGGGCTGCT AGTACCAGCC GGGGGACCAC ATAGGTGTCT GCCCGCCAA
 2461 CCGGCCCGGC CTTGTGGAGG CGCTGCTGAG CCGCGTGGAG GACCCGCCGG CGCCACTGA
 2521 GCGCGTGGCA GTAGAGCAGC TGGAGAAGGG CAGCCCTGGT GGCCCTCCCC CCGGCTGGGT
 2581 GCGGGACCCC CGGCTGCCCC CGTGACCGCT GCGCCAGGCT CTCACCTTCT TCCTGGACAT
 2641 CACCTCCCCA CCCAGCCCTC AGCTCTTGGC GCTGCTCAGC ACCTTGGCAG AAGAGCCAG
 2701 GGAACAGCAG GAGCTGGAGG CCCTCAGCCA GGATCCCCGA CGCTACGAGG AGTGGAAGTG
 2761 GTTCCGCTGC CCCACGCTGC TGGAGGTGCT GGAGCAGTTC CCGTCGGTGG CGCTGCCTGC
 2821 CCCACTGCTC CTCACCCAGC TGCCCTCTGCT CCAGCCCCGG TACTACTCAG TCAGCTCGGC
 2881 ACCCAGCACC CACCCAGGAG AGATCCACCT CACTGTAGCT GTGCTGGCAT ACAGGACTCA
 2941 GGATGGGCTG GGCCCTCTGC ACTATGGAGT CTGCTCCACG TGGCTAAGCC AGCTCAAGCC
 3001 CGGAGACCCT GTGCCCTGCT TCATCCGGGG GGCTCCCTCC TTCCGGCTGC CACCAGATCC
 3061 CAGCTTGCCC TGATCCTGG TGGGTCCAGG CACTGGCATT GCGCCCTTCC GGGGATTCTG
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 3241 GCAGCGCGGG GTGTTTGGCC GAGTCCTCAC CGCCTTCTCC CGGGAACCTG ACAACCCAA
 3301 GACCTACGTG CAGGACATCC TGAGGACGGA GCTGGCTGCG GAGGTGCACC GCGTGTCTGT
 3361 CCTCGAGCGG GGCCACATGT TTGTCTGCGG CGATGTTACC ATGGCAACCA ACGTCTGCA
 3421 GACCGTGACG CGCATCCTGG CGACGGAGGG CGACATGGAG CTGGACGAGG CCGGCGACGT
 3481 CATCGGCGTG CTGCGGGATC AGCAACGCTA CCACGAAGAC ATTTTCGGGC TCACGCTGCG
 3541 CACCCAGGAG GTGACAAGCC GCATACGCAC CCAGAGCTTT TCCTTGAGG AGCGTCAGTT
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 3661 GCGGCTGGC TTTCCCTTCC AGTTCGGGGA GAGCGGCTGC CCGACTCAGG TCCGCCCAGC
 3721 CAGGATCAGC CCCGCTCCTC CCCTCTTGAG GTGGTGCCTT CTCACATCTG TCCAGAGGCT
 3781 GCAAGGATTC AGCATTATTC CTCAGGAAG GAGCAAAACG CCTCTTTTCC CTCTAGGC
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 3901 AGGGCTACT GCCACCCGCT TCCTGTTTCT TAGTCCGAAT GTTAGATTCC TCTTGCTCT
 3961 CTCAGGAGTA TCTTACCTGT AAAGTCTAAT CTCTAAATCA AGTATTTAT ATTGAAGATT
 4021 TACCATAAGG GACTGTGCCA GATGTTAGGA GAACTACTAA AGTGCTTACC CCAGCTC

(2) INFORMATION FOR SEQ ID NO:2510:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11970 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2510:

1 AAGCTTCTAC CCTAGTCTGG TGCTACACTT ACATTGCTTA CATCCAAGTG TGGTTATTTTC

61 TGTGGCTCCT GTTATAACTA TTATAGCACC AGGTCTATGA CCAGGAGAAT TAGACTGGCA
121 TTAAATCAGA ATAAGAGATT TTGCACCTGC AATAGACCTT ATGACACCTA ACCAACCCCA
181 TTATTTACAA TTAACAGGA ACAGAGGGAA TACTTTATCC AACTCACACA AGCTGTTTTTC
241 CTCCCAGATC CATGCTTTTT TGCGTTTATT ATTTTITAGA GATGGGGGCT TCACTATGTT
301 GCCCACACTG GACTAAAAC'T CTGGGCTCA AGTGATTGTC CTGCCTCAGC CTCCTGAATA
361 GCTGGGACTA CAGGGGCATG CCATCACACC TAGTTCATTT CCTCTATTTA AAATATACAT
421 GGCTTAAACT CCAACTGGGA ACCCAAAACA TTCATTTGCT AAGAGTCTGG TGTTCCTACCA
481 CCTGAAGTAG GCTGGCCACA GGAATTATAA AAGCTGAGAA ATTCTTTAAT AATAGTAACC
541 AGGCAACATC ATTGAAGGCT CATATGTAAA AATCCATGCC TTCCTTCTC CCAATCTCCA
601 TTCCCAAACT TAGCCACTGG TTCTGGCTGA GGCCTTACGC ATACCTCCCG GGGCTTGCAC
661 ACACCTTCTT CTACAGAAGA CACACCTTGG GCATATCCTA CAGAAGACCA GGCTTCTCTC
721 TGGTCTTGG TAGAGGGCTA CTTTACTGTA ACAGGGCCAG GGTGGAGAGT TCTCTCTGTA
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841 CTTCTTTGTG CTCAAATACC ACTGTTCTCT TCTCTACCTT GCCCTAACCA GGAGCTTGTC
901 ACCCCAAACT CTGAGGTGAT TTATGCCTTA ATCAAGCAAA CTTCCTCTCT CAGAAAAGAT
961 GGCTCATTTT CCCTCAAAAG TTGCCAGGAG CTGCCAAGTA TTCTGCCAAT TCACCTGGGA
1021 GCACAATCAA CAAATTCAGC CAGAACACAA CTACAGCTAC TATTAGAACT ATTATTATTA
1081 ATAAATTCCT CTCCAAATCT AGCCCCTTGA CTTCCGATT T CACGATTCT CCCTTCTCTC
1141 TAGAACTTG ATAAGTTTCC CGCGCTTCCC TTTTCTAAG ACTACATGTT TGTCTCTTA
1201 TAAAGCAAAG GGGTGAATAA ATGAACCAA TCAATAACTT CTGGAATATC TGCAACAAC
1261 AATAATATCA GCTATGCCAT CTTTCACTAT TTTAGCCAGT ATCGAGTTGA ATGAACATAG
1321 AAAAATACAA AACTGAATTC TTCCCTGTAA ATTCCCGT T TGACGACGC ACTTGTAGCC
1381 ACGTAGCCAC GCCTACTTAA GACAATTACA AAAGGCGAAG AAGACTGACT CAGGCTTAAG
1441 CTGCCAGCCA GAGAGGGAGT CATTTCATTG GCGTTTGAGT CAGCAAAGGT ATTGTCTCA
1501 CATCTCTGGC TATTAAAGTA TTTTCTGTTG TTGTTTCTT CTTTGGCTGT TTTCTCTCAC
1561 ATTGCCTTCT CTAAAGCTAC AGTCTCTCT TCTTTTCTT GTCCCTCCCT GGTTCGTAT
1621 GTGACCTAGA ATTACAGTCA GATTTCAGAA AATGATTCTC TCATTTTGCT GATAAGGACT
1681 GATTTCGTTTT ACTGAGGGAC GGCAGAACTA GTTTCCTATG AGGGCATGGG TGAATACAAC
1741 TGAGGCTTCT CATGGGAGGG AATCTCTACT ATCCAAAATT ATTAGGAGAA AATTGAAAT
1801 TTCCAACTCT GTCTCTCTCT TACCTCTGTG TAAGGCAAAAT ACCTTATCT TGTGGTGT
1861 TTGTAACTTC TTCAAACCTT CATTGATTGA ATGCCTGTT TGGCAATACA TTAGGTTGGG
1921 CACATAAGGA ATACCAACAT AAATAAAACA TTCTAAAAGA AGTTTACGAT CTAATAAAGG
1981 AGACAGGTAC ATAGCAAAC T AATCAAAGG AGCTAGAAGA TGGAGAAAAT GCTGAATGTG
2041 GACTAAGTCA TTCAACAAAG TTTTCAGGAA GCACAAAGAG GAGGGGCTCC CCTCACAGAT
2101 ATCTGGATTA GAGGCTGGCT GAGCTGATGG TGGCTGGTGT TCTCTGTTGC AGAAGTCAAG
2161 ATGGCCAAAG TTCCAGACAT GTTTGAAGAC CTGAAGAACT GTTACAGGTA AGGAATAAGA
2221 TTTATCTCTT GTGATTTAA T GAGGGTTTCA AGGCTCACC GAATCCAGCT AGGCATAACA
2281 GTGGCCAGCA TGGGGGAGG CCGGCAGAGG TTGTAGAGAT GTGTACTAGT CCTGAAGTCA
2341 GAGCAGGTTT AGAGAAGACC CAGAAAAACT AAGCATTGAG CATGTTAAAC TGAGATTACA
2401 TTGGCAGGGA GACCGCCAT TTAGAAAAAT TATTTTGGAG GTCTGCTGAG CCTACATGA
2461 ATATCAGCAT CAACTTAGAC ACAGCCTCTG TTGAGATCAC ATGCCCTGAT ATAAGAATGG
2521 GTTTTACTGG TCCATTCTCA GGAAAACTTG ATCTCATTCA GGAACAGGAA ATGGCTCCAC
2581 AGCAAGCTGG GCATGTGAAC TCACATATGC AGGCAAACT CACTCAGATG TAGAAGAAAG
2641 GTAAATGAAC ACAAGATAA AATTACGGAA CATATTAAAC TAACATGATG TTTCCATTAT
2701 CTGTAGTAAA TACTAACACA AACTAGGCTG TCAAAATTTT GCCTGGATAT TTTACTAAGT
2761 ATAAATTATG AAATCTGTTT TAGTGAATAC ATGAAAGTAA TGTGTAACAT ATAATCTATT
2821 TGGTTAAAAT AAAAAGGAAG TGCTCAAAA CCTTTCTTTT CTCTAAAGGA GCTTAACATT
2881 CTTCCTTGAA CTTCAATTAA AGCTCTTCAA TTTGTTAGCC AAGTCCAATT TTTACAGATA
2941 AAGCACAGGT AAAGCTCAAA GCCTGTCTTG ATGACTACTA ATTCCAGATT AGTAAGATAT
3001 GAATTACTCT ACCTATGTGT ATGTGTAGAA GTCCTTAAAT TTCAAAGATG ACAGTAATGG
3061 CCATGTGTAT GTGTGTGACC CACAACATC ATGGTCATTA AAGTACATTG GCCAGAGACC
3121 ACATGAAATA ACAACAATTA CATTCTCATC ATCTTATTTT GACAGTGAAG ATGAAGAAGA
3181 CAGTTCCCTCC ATTGATCATC TGTCTCTGAA TCAGGTAAGC AAATGACTGT AATTCTCATG
3241 GGAAGTGTAT TCTTACACAG TGGTTTCTTC ATCCAAAGAG AACAGCAATG ACTTGAATCT
3301 TAAATACTTT GTTTTACCC TCACTAGAGA TCCAGAGACC TGTCTTTCAT TATAAGTGAG
3361 ACCAGCTGCC TCTCTAACT AATAGTTGAT GTGCATTGGC TTCTCCAGA ACAGAGCAGA
3421 ACTATCCCAA ATCCCTGAGA ACTGGAGTCT CCTGGGGCAG GCTTCATCAG GATGTAGTT
3481 ATGCCATCCT GAGAAAGCCC CGCAGGCCGC TTCACCAGGT GTCTGTCTCC TAACGTGATG
3541 TGGTTGGTTG GTCTTCTCTG ACACCAGCAT CAGAGGTTAG AGAAAGTCTC CAAACATGAA
3601 GCTGAGAGAG AGGAAGCAAG CCAGCTGAAA GTGAGAAATC TACAGCCACT CATCAATCTG
3661 TGTATTGTG TTTGGAGACC ACAAATAGAC ACTATAAGTA CTGCCTAGTA TGTCTTCAGT

3721 ACTGGCTTTA AAAGCTGTCC CCAAAGGAGT ATTTCTAAAA TATTTTGAGC ATTGTTAAGC
3781 AGATTTTAA CCTCTGAGA GGGAACTAAT TGGAAAGCTA CCACTCACTA CAATCATTGT
3841 TAACCTATTT AGTTACAACA TCTCATTTTT GAGCATGCAA ATAAATGAAA AAGCTTCCT
3901 AAAAAATCA TCTTTTATC CTGGAAGGAG GAAGGAAGGT GAGACAAAAG GGAGAGAGGG
3961 AGGGAAGCCT AATGAAACAC CAGTTACCTA AGACCAGAAT GGAGATCCTC CTCACCTACCT
4021 CTGTTGAATA CAGCACCTAC TGAAAGAACT TTCATTCCCT GACCATGAAC AGCCTCTCAG
4081 CTTCTGTTTT CCTTCCTCAC AGAAATCCTT CTATCATGTA AGCTATGGCC CACTCCATGA
4141 AGGCTGCATG GATCAATCTG TGTCTCTGAG TATCTCTGAA ACCTCTAAAA CATCCAAGCT
4201 TACCTTCAAG GAGAGCATGG TGGTAGTAGC AACCAACGGG AAGGTTCTGA AGAAGAGACG
4261 GTTGAATTTA AGCCAATCCA TCACTGATGA TGACCTGGAG GCCATCGCCA ATGACTCAGA
4321 GGAAGGTAAG GGGTCAAGCA CAATAATATC TTTCTTTTAC AGTTTAAAGC AAGTAGGGAC
4381 AGTAGAATTT AGGGGAAAAA TAAACGTGGA GTCAGAATAA CAAGAAGACA ACCAAGCATT
4441 AGTCTGGTAA CTATACAGAG GAAAATTAAT TTTTATCCTT CTCCAGGAGG GAGAAATGAG
4501 CAGTGGCCTG AATCGAGAAT ACTTGCTCAC AGCCATTATT TCTTAGCCAT ATTGTAAAGG
4561 TCGTGTGACT TTTAGCCTTT CAGGAGAAAG CAGTAATAAG ACCACTTACG AGCTATGTTT
4621 CTCTCACTA AACTATGCCCT CCTTGGTCAT GTTACATAAT CTTTTCGTGA TTCAGTTTCC
4681 TCTACTGTAA AATGGAGATA ATCAGAATCC CCCACTCATT GGATGTGTTT AAAGATTAAAG
4741 AGTCTCAGGC TTTACAGACT GAGCTAGCTG GGCCCTCCTG ACTGTTATAA AGATTAAATG
4801 AGTCAACATC CCCTAACTTC TGGACTAGAA TAATGTCTGG TACAAAGTAA GCACCCAATTA
4861 AATGTTAGCT ATTACTATCA TTATTATTAT TATTTTATTT TTTTTTTTTG AGATGGAGTC
4921 TGGCTCTGTC ACCCAGGCTG GAGTGCAGTG GCACAATCTC GGCTCACTGC AAGCTCTGCC
4981 TCCTGGGTTT ATGCCTATTCT CCTGCCTCAG CCTCCCGAGT AAGCTGGGAA TACAGGCACC
5041 CGCCACTGTT CCCGGCTAAT TTTTGTATT TTTAGTAGAG ACGGAGTTTC ACCGTGGTCT
5101 CCATCTCCTC GTGATCCACC CACCTTGGCC TCCCAAAGTG CCGGATTAC AGGCGTGAGC
5161 CACCGCGCCC GGCCTATTAT TATTATTATT ACTACTACTA CTACCTATAT GAATACTACC
5221 AGCAATACTA ATTTATTAAT GACTGGATTA TGTCTAAACC TCACAAGAAT CCTACCTTCT
5281 CATTTTACTT AAAAGGAAAC TAAGCTCATT GAGATAGGTA AACTGCCCAA TGGCATACT
5341 CTGTAAGTGG GAGAGCCTCA AATCTAATTC AGTTCTACCT GAGTAAAAAA ATCATGGTTT
5401 CTCCTCCATC CCTTACTGT ACAAGCCTCC ACATGAACCTA TAAACCCAAT ATTCCTGTTT
5461 TTAAGATAAT ACCTAAGCAA TAACGCATGT TCACCTAGAA GGTTTTAAAA TGTAAACAAA
5521 TATAAGAAAA TAAAAATCAC TCATATCGTC AGTGAGAGTT TACTACTGCC AGCACTATGG
5581 TATGTTTCCT TAAATCTTT GCTATACACA TACCTACATG TGAACAAATA TGTCTAACAT
5641 CAAGACCACA CTATTTACAA CTTTATATCC AGCTTTTCTT ACTTAGCAAT GTATGTAGGA
5701 CATTTTAGAG TGCCCGTTTT TCACCATTAT AAGCAATGCA ACAATGAACA TCTGTATAAA
5761 TAAATATTCA TTTCTCTCAC CCTTTATTTT CTTAGAATAT ATTCCTAGAA GTAGAATTTT
5821 CCAGAGCCAT GAGGATTTGT GACGCTATTG ATATGTGCCA CTTTGCACCT TCTGTGCAT
5881 ATATAATTAT TTTAATGCA TTCAATTTTT TCTCAGAGTG CATTCGTTTG AAAACATAGA
5941 CGGGAATAC TGGTAGTCTT CTTGTGAGT TAGAAACACC CAAACAATGA AAAATGAAAA
6001 AGTTGCACAA ATAGTCTCTA AAAACAATGA AACTATTGCC TGAGGAATTG AAGTTTAAAA
6061 AGAAGCACAT AAGCAACAAC AAGGATAATC CTAGAAAACC AGTTCTGCTG ACTGGGTGAT
6121 TTTCACTTCT TTTGCTTCTC CATCTGGATT GGAATATTCC TAATACCCCC TCCAGAACTA
6181 TTTTCCCTGT TTGTACTAGA CTGTGTATAT CATCTGTGTT TGTACATAGA CATTAATCTG
6241 CACTTGTGAT CATGGTTTTA GAAATCATCA AGCCTAGGTC ATCACCTTTT AGCTTCCTGA
6301 GCAATGTGAA ATACAACCTT ATGAGGATCA TCAATACGA ATTCATCCTG AATGACGCCC
6361 TCAATCAAAG TATAATTCGA GCCAATGATC AGTACCTCAC GGCTGCTGCA TTACATAATC
6421 TGGATGAAGC AGGTACATTA AATGGCACC AGACATTTCT GTCATCCTCC CCTCCTTTCA
6481 TTTACTTATT TATTTATTTT AATCTTTCTG CTTGCAAAAA ACATACCTCT TCAGAGTTCT
6541 GGGTGCACA ATTCTTCCAG AATAGCTTGA AGCACAGCAC CCCCATAAAA ATCCCAAGCC
6601 AGGGCAGAAG GTTCAACTAA ATCTGGAAGT TCCACAAGAG AGAAGTTTCC TATCTTTGAG
6661 AGTAAAGGGT TGTGCACAAA GCTAGCTGAT GTACTACCTC TTTGGTTCTT TCAGACATTC
6721 TTACCCCTCAA TTTTAAAACT GAGGAAACTG TCAGACATAT TAAATGATTT ACTCAGATTT
6781 ACCCAGAAGC CAATGAAGAA CAATCACTCT CTTTAAAAAA GTCTGTTGAT CAAACTCACA
6841 AGTAACACCA AACCAGGAAG ATCTTTATTA TCTCTGATAA CATATTTGTG AGGCAAAACC
6901 TCCAATAAGC TACAAATATG GCTTAAAGGA TGAAGTTTAG TGTCCAAAAA CTTTATCAC
6961 ACACATCCAA TTTTCATGGC GGACATGTTT TAGTTTCAAC AGTATACATA TTTTCAAAGG
7021 TCCAGAGAGG CAATTTTGCA ATAAACAAGC AAGACTTTTT CTGATTGGAT GCACCTCAGC
7081 TAACATGCTT TCAACTCTAC ATTTACAAAT TATTTGTGT TCTATTTTTC TACTTAATAT
7141 TATTTCTGCA ATTTTCCCAA TATTGACATC GTGTATGTAT TTGCCATTTT TAATATCACT
7201 AGACAATTCA ATCAGGTTGC TACGTTGGTC CCTTGGGTTT ACTCTAAATA GCTTGATTGC
7261 AAAATCTTTT GTATATATTA TTGTTTTTTC TCCTATCTTG TAATTTCTTT GAGCACATCC
7321 CAAAGAGGAA TGCTTAGATC AATGGGCACA AATAATTTGA CAGCTCTTAT TAAACATTAT
7381 TCTGTAAGTA AAAACTGAAC TACTTTTCAG TATCACTAGC AACATATGAG TGTATCAGCT

7441 TCCTAAACCC CTCCATGTTA GGTCATTATG AACTTATGAT CTAACAAATT ACAGGGTCTT
 7501 ATCCCACTAA TGAATTATA AGAGATTCAA CACTTATTCA GCCCCGAAGG ATTCATTCAA
 7561 CGTAGAAAAT TCTAAGAACA TTAACCAAGT ATTTACCTGC CTAGTGAGTG TGGGAAGACAT
 7621 TGTGAAGGAC ACAAAGATGT ATAGAATTCC ATTCCTGACT TCCAGGTATT TACACCATAG
 7681 GTGGGGACCT AACTACACAC ACACACACAC ACACACACAC ACACACACAC ACCATGCACA
 7741 CACAATCTAC ATCAACACTT GATTTTATAC AAATACAATG AATTTACTTT CTTTTTGGTT
 7801 CTTCTCTTCA CCAGTGAAAT TTGACATGGG TGCTTATAAG TCATCAAAGG ATGATGCTAA
 7861 AATTACCGTG ATTCTAAGAA TCTCAAAAAC TCAATTGTAT GTGACTGCCC AAGATGAAGA
 7921 CCAACCAGTG CTGCTGAAGG TCAGTTGTCC TTTGTCTCCA ACTTACCTTC ATTTACATCT
 7981 CATATGTTTG TAAATAAGCC CAATAGGCAG ACACCTCTAA CAAGGTGACA CTGTCTCTT
 8041 TCCTTCCTAC CACAGCCCCC ACCTACCCAC CCCACTCCCA TTGATTCCAG AGGCGTGCCT
 8101 AGGCAGGATC TATGAGAAA TATAACAGAG AGTAAGAGGA AAATTACCTT CTTCTTTT
 8161 CCTTCCCTG CCTGACCTTA TTCACCTCCC ATCCCAGAGC ATCCATTTAT TCCATTGATC
 8221 TTTACTGACA TCTATTATCT GACCTACACA ATACTAGACA TTAGGACAAT GTGCCTGCC
 8281 TCCAAGAAAC TCAATAAAGC CAACTGAGAT CAGAGAGGAT TAATCACCTG CCAATGGGCA
 8341 CAAAGCAACA AGCTGGGAGC CAAGTCCCAA AATGGGGCCT GCTGCTTCCA GTTCCCCTCT
 8401 CTCTGCATTG ATGTCAGCAT TATCCTTCCT CCAGTCCCTG TCTCCACTAC CACTTCCCC
 8461 CTCAAACACA CACACACACA ACAGCCTTAG ATGTTTTCTC CACTGATAAG TAGGTGACTC
 8521 AATTGTGAAG TATATAATCC AAGACCTTCT ATTCCCAAGT AGAATTTATG TGCTGCCTG
 8581 TGCTTTTCTA CCTGGATCAA GTGATGTCTA CAGAGTAGGG CAGTAGCTTC ATTCATGAAC
 8641 TCATTCAACA AGCATTATTC ACTGAGAGCC TTGTATTTT CAGGCATAGT GCCAACAGCA
 8701 GTGTGGACAG TGGTGCATCA AAGCCTCTAG TCTCATAGAA CTTAGTCTTC TGGAGGATAT
 8761 GGAACACAGA CAACCAAAC AACCAACAAA AGAGCAAGAT GCTGCAAAAA AAAAAAAAT
 8821 GAATAGGGTG CTAAGATAGA GAAAGTGGG AGAGTGCTAT TTAGACAAAG TGGTAAAC
 8881 AAAGCCCTT GTGAGATGAG AGCTGCCGAC AGAGGGGGCG GGTGATGGTT GTGGGTTTTT
 8941 GGGTAGGACA TTCAGAGGAG GGGGCGGGTG GTGTTGTGG GTTTTTGGGT AGGACATTCA
 9001 GAGGAGGGGG GGGGTCTGG TTTGGGTTT TTGGGTAGGA CATTGAGAGG AGGGGGCGGG
 9061 TCGTGGTTGT GGGTTTTTGG GTAGGACATT CAGAGGAGGG GCGGGTCTGT GGTGTGGGT
 9121 TTTTGGGACA TTCAGAGGAG TCTGAATGCA CCCAGGCCTA CAACTTCAAG ATGGTAAAGG
 9181 ACAGCTCCAA GGATCAGAAG AAGCATTCTT GGAAGTGGG CATTTTGAGA AGGAGGAAAA
 9241 ATATGACAGC ACTAGTGCTT GCAGAGCTTG CATTGGATT TCATTGAGG TACAATGAAA
 9301 ACCCATTAAT GGGTTTCACA CAGTGCAATG GCCTGACCTC ACTTATATTT CCTAAAATAG
 9361 AAAACAGATC AGAAGGAAG CAATAGAGAA GCAGAAAGTC CAATGAGGAG GTTTCACAGC
 9421 AGTCATGGGG GTGGGGTAAG GAAAGAAAGT GGAAGAAAC AGACAGAATT GGGTTATATT
 9481 TTGGAGATAG AACCAACAGA AGGAAGAGGA GAAACAACAT TTACTGAGAA GGGAAAAAGT
 9541 AGGAGAGGAA TAGGTTTGGG AAATAAATCC TGTGACATT GGAACCCCA AGGAAGCCTC
 9601 AAAAGTATAT TTAAGTATAT TAGATTTAAA AGAATAGGAA AGAAGCATCT CAACTTGGAA
 9661 TTTGAAATCT ATTTTTCAT AAAAGTATTG TTAATTTCTA CTATACCTCA CAAGAAAAGT
 9721 ACATTCTAAA GAGTATATTG AAAGAGTTTA CTGATATACT TAGGAATTTT GTGTGTATGT
 9781 GTGTGTGTGT ATGTGTGTGT GTGTGTTTAA CCTTCAATTG TTGACTTAAA TACTGAGATA
 9841 AATGTCATCT AAATGCTAAA TTGATTTCCC AAAGGTATGA TTTGTTCACT TGGAGATCAA
 9901 AATGTTTAGG GGGCTTAGAA TCACTGTAGT GCTCAGATTG GATGCAAAAT GTCTTAGGCC
 9961 TATGTTGAAG GCAGGACAGA AACAATGTTT CCTCCTACC TGCTGGATA CAGTAAGATA
 10021 CTAGTGTAC TGACAATCTT CATAACTAAT TTAGATCTCT CTCCAATCAA CTAAGGAAAT
 10081 CAACTCTTAT TAATAGACTG GGCCACACAT CTACTAGGCA TGTAAATAAT GCTTGCTGAA
 10141 TGAACAAATG AATGAAGAGC CTATAGCATC ATGTTACAGC CATAGTCCTA AAGTGGTGT
 10201 TCTCATGAAG GCCAAATGCT AAGGGATTGA GCTTCAGTCC TTTTCTAAC ATCTTGTCTT
 10261 CTAACAGAAT TCTCTCTTT TCTTCATAGG AGATGCCTGA GATACCCAA ACCATCACAG
 10321 GTAGTGAGAC CAACCTCCTC TTCTTCTGGG AAACCTCAGG CACTAAGAAC TATTTACAT
 10381 CAGTTGCCCA TCCAAACTTG TTTATTGCCA CAAAGCAAGA CTACTGGGTG TGCTTGGCAG
 10441 GGGGGCCACC CTCTATCACT GACTTTTACA TACTGGAAAA CCAGGCGTAG GTCTGGAGTC
 10501 TCACTTGTCT CACTTGTGCA GTGTGACAG TTCATATGTA CCATGTACAT GAAGAAGCTA
 10561 AATCCTTTAC TGTAGTCAT TTGCTGAGCA TGTACTGAGC CTGTGAATTC TAAATGAATG
 10621 TTTACACTCT TTGTAAGAGT GGAACCAACA CTAACATATA ATGTTGTAT TTAAGAACA
 10681 CCCTATATTT TGCATAGTAC CAATCATTTT AATTATTATT CTTATAACA ATTTTAGGAG
 10741 AGCCAGAGCT ACTGACTATG GCTACCAAAA AGACTCTACC CATATTACAG ATGGGCAAA
 10801 TAAGGCATAA GAAAACTAAG AAATATGCAC AATAGCAGTT GAAACAAGAA GCCACAGACC
 10861 TAGGATTTCA TGATTTTCA TCAACTGTTT GCCTTCTGCT TTTAAGTGC TGATGAATCT
 10921 TTAATCAAAT AGCATAAGTT TCTGGGACCT CAGTTTTATC ATTTTCAAAA TGGAGGGAAT
 10981 AATACCTAAG CCTTCTGCC GCAACAGTTT TTTATGCTAA TCAGGGAGGT CATTTTGGTA
 11041 AAATACTTCT CGAAGCCGAG CCTCAAGATG AAGGCAAGC ACGAAATGTT ATTTTATAAT
 11101 TATTATTTAT ATATGTATTT ATAAATATAT TTAAGATAAT TATAATATAC TATATTTATG

11161 GGAACCCCTT CATCCTCTGA GTGTGACCAG GCATCCTCCA CAATAGCAGA CAGTGTTTTC
 11221 TGGGATAAGT AAGTTTGATT TCATTAATAC AGGGCATTTC GGTCCTATCC GTGCTTATCC
 11281 CATAGCCAGG AACTCTGCA TTCTAGTACT TGGGAGACCT GTAATCATAT AATAAATGTA
 11341 CATTAAATTAC CTTGAGCCAG TAATTGGTCC GATCTTTGAC TCTTTTGCCA TTAAACTTAC
 11401 CTGGGCATTC TTGTTTCATT CAATCCACC TGCAATCAAG TCCTACAAGC TAAAATTAGA
 11461 TGAACCAAC TTTGACAACC ATGAGACCAC TGTATCAAA ACTTCTTTT CTGGAATGTA
 11521 ATCAATGTTT CTTCTAGGTT CTAAAAATTG TGATCAGACC ATAATGTTAC ATTATTATCA
 11581 ACAATAGTGA TTGATAGAGT GTTATCAGTC ATAATAAAT AAAGCTTGCA AAAAAATTCT
 11641 CTGACACATA GTTATTCATT GCCTTAATCA TTATTTTACT GCATGGTAAT TAGGGACAAA
 11701 TGGTAAATGT TTAACATAAT AATTGTATT AGTGTTACTT TATAAATCA AACCAAGATT
 11761 TTATATTTT TTCTCCTCTT TGTAGCTGC CAGTATGCAT AAATGGCATT AAGAATGATA
 11821 ATATTTCCGG GTTCACTTAA AGCTCATATT ACACATACAC AAAACATGTG TTCCCATCTT
 11881 TATACAACT CACACATACA GAGCTACATT AAAAACACT AATAGGCCAG GCACGGTGGC
 11941 TCAGACCTGT AATCCCAGCA CTTTGGGAGG

(2) INFORMATION FOR SEQ ID NO:2511:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1497 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2511:

1 ACCAACCTCT TCGAGGCACA AGGCACAACA GGCTGCTCTG GGATTCTCTT CAGCCAATCT
 61 TCATTGCTCA AGTGTCTGAA GCAGCCATGG CAGAAGTACC TGAGCTCGCC AGTGAAATGA
 121 TGGCTTATTA CAGTGGCAAT GAGGATGACT TGTCTTTGA AGCTGATGGC CCTAAACAGA
 181 TGAAGTGCTC CTTCCAGGAC CTGGACCTCT GCCCTCTGGA TGGCGGCATC CAGCTACGAA
 241 TCTCCGACCA CCACTACAGC AAGGGCTTCA GGCAGGCCGC GTCAATTGTT GTGGCCATGG
 301 ACAAGCTGAG GAAGATGCTG GTTCCCTGCC CACAGACCTT CCAGGAGAAT GACCTGAGCA
 361 CCTTCTTTCC CTTTCTCTTT GAAGAAGAAC CTATCTTCTT CGACACATGG GATAACGAGG
 421 CTTATGTGCA CGATGCACCT GTACGATCAC TGAAGTCAC GCTCCGGGAC TCACAGCAAA
 481 AAAGCTTGGT GATGTCTGGT CCATATGAAC TGAAAGCTCT CCACCTCCAG GGACAGGATA
 541 TGAGGCAACA AGTGGTGTTC TCCATGTCCT TTGTACAAGG AGAAGAAAGT AATGACAAAA
 601 TACCTGTGGC CTTGGGCCCTC AAGGAAAAGA ATCTGTACCT GTCCTGCGTG TTGAAAGATG
 661 ATAAGCCAC TCTACAGCTG GAGAGTGTAG ATCCCAAAA TTACCCAAAG AAGAAGATGG
 721 AAAAGCGATT TGTCTTCAAC AAGATAGAAA TCAATAACAA GCTGGAATTT GAGTCTGCCC
 781 AGTTCCCAA CTGGTACATC AGCACCTCTC AAGCAGAAAA CATGCCCGTC TTCTGGGAG
 841 GGACCAAGG CGGCCAGGAT ATAACTGACT TCACCATGCA ATTTGTGTCT TCCTAAAGAG
 901 AGCTGTACCC AGAGAGTCCT GTGCTGAATG TGGACTCAAT CCCTAGGGCT GGCAGAAAGG
 961 AACAGAAAG GTTTTGTAGT ACGGCTATAG CCTGGACTTT CCGTTGTCT ACACCAATGC
 1021 CCAACTGCCT GCCTTAGGGT AGTGCTAAGA GGATCTCCTG TCCATCAGCC AGGACAGTCA
 1081 GCTCTCTCT TTAGGGCCA ATCCCAGCC CTTTGTGTTA GCCAGGCCCTC TCTCACCTCT
 1141 CCTACTCACT TAAAGCCCGC CTGACAGAAA CCACGGCCAC ATTTGGTTCT AAGAAACCTT
 1201 CTGTCATTCT CTCCCACATT CTGATGAGCA ACCGCTTCCC TATTTATTTA TTTATTTGTT
 1261 TGTTTGTTTT ATTCATTGTT CTAATTTATT CAAAGGGGGC AAGAAGTAGC AGTGTCTGTA
 1321 AAAGAGCCTA GTTTTAAATA GCTATGGAAT CAATTCATT TGGACTGGTG TGCTCTCTTT
 1381 AAATCAAGTC CTTTAATTAA GACTGAAAAT ATATAAGCTC AGATTATTTA AATGGGAATA
 1441 TTTATAAATG AGCAAATATC ATACTGTTCA ATGGTTCTGA AATAAATCTC TCTGAAG

(2) INFORMATION FOR SEQ ID NO:2512:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9721 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2512:

1 AGAAAGAAG AGAGAGAGAA AGAAAAGAAA GAGGAAGGAA GGAAGGAAGG AAGAAAGACA
 61 GGCTCTGAGG AAGGTGGCAG TTCCTACAAC GGGAGAACCA GTGGTTAATT TGCAAAGTGG
 121 ATCCTGTGGA GGCANNCAGA GGAGTCCCCT AGGCCACCCA GACAGGGCTT TTAGCTATCT
 181 GCAGGCCAGA CACCAATTT CAGGAGGGCT CAGTGTTAGG AATGGATTAT GGCTTATCAA
 241 ATTCACAGGA AACTAACATG TTGAACAGCT TTAGATTTC CTGTGGAAAA TATAACTTAC
 301 TAAAGATGGA GTTCTTGTGA CTGACTCCTG ATATCAAGAT ACTGGGAGCC AAATTAAGAA
 361 TCAGAAGGCT GCTTGGAGAG CAAGTCCATG AAATGCTCTT TTCCACAG TAGAACCTAT
 421 TTCCCTCGTG TCTCAATAC TTGCACAGAG GCTCACTCCC TTGGATAATG CAGAGCGAGC

481 ACGATACCTG GCACATACTA ATTTGAATAA AATGCTGTCA AATTCCCATT CACCCATTCA
541 AGCAGCAAAC TCTATCTCAC CTGAATGTAC ATGCCAGGCA CTGTGCTAGA CTTGGCTCAA
601 AAAGATTTCA GTTTCCTGGA GGAACCAGGA GGGCAAGGTT TCAACTCAGT GCTATAAGAA
661 GTGTTACAGG CTGGACACGG TGGCTCACGC CTGTAATCCC AACATTTGGG AGGCCGAGGC
721 GGGCAGATCA CAAGGTCAGG AGATCGAGAC CATCCTGGCT AACATGGTGA AACCCCTGTCT
781 CTAATAAAAA TACAAAAAAT TAGCCGGGCG TTGGCGGCAG GTGCCTGTAG TCCCAGCTGC
841 TGGGGAGGCT GAGGCAGGAG AATGGTGTGA ACCCGGGAGG CGGAACCTGC AGGGGGCCGA
901 GATCGTGCCA CTGCACTCCA GCCTGGGCGA CAGAGTGAGA CTCTGTCTCA AAAAAAAAAA
961 AAAAGTGTTA TGATGCAGAC CTGTCAAAGA GGCAAAGGAG GGTGTTCCCTA CACTCCAGGC
1021 ACTGTTTATA ACCTGGACTC TCATTTCATC TACAAATGGA GGGCTCCCCCT GGGCAGATCC
1081 CTGGAGCAGG CACTTTGCTG GTGTCTCGGT TAAAGAGAAA CTGATAACTC TTGGTATTAC
1141 CAAGAGATAG AGTCTCAGAT GGATATTCTT ACAGAAACAA TATTCCCCTT TTTCTAGAGT
1201 CACCAAAAAA TCATTTTAGG CAGAGCTCAT CTGGCATTGA TCTGGTTCAT CCATGAGATT
1261 GGCTAGGGTA ACAGCACCTG GTCTGTCAGG GTTGTGTGAG CTTATCTCCA GGGTGTGCCC
1321 AACTCCGTC AAGGCTGAA CCCTGCATAC CGTATGTTCT CTGCCCCAGC CAAGAAAGGT
1381 CAATTTTCTC CTCAGAGGCT CCTGCAATTG ACAGAGAGCT CCCGAGGCAG AGAACAGCAC
1441 CCAAGGTAGA GACCCACACC CTCATACAG ACAGGGAGG CTATTGGCCC TTCATTGTAC
1501 CCATTTATCC ATCTGTAAGT GGAAGATTC CTAACTTAA GTACAAAGAA GTGAATGAAG
1561 AAAAGTATGT GCATGTATAA ATCTGTGTGT CTTCCACTTT GTCCACATA TACTAAATTT
1621 AAACATTCTT CTAACGTGGG AAAATCCAGT ATTTAATGT GGACATCAAC TGCACAACGA
1681 TTGTCAGGAA AACAATGCAT ATTTGCATGG TGATACATTT GCAAATGTG TCATAGTTTG
1741 CTACTCCTTG CCCTTCCATG AACCAGAGAA TTATCTCAGT TTATTAGTCC CCTCCCCATA
1801 GAAGCTTCCA CCAATACTCT TTTCCCCTTT CCTTAACTT GATTGTGAAA TCAGGTATTC
1861 AACAGAGAAA TTTCTCAGCC TCCTACTTCT GCTTTTGAAG GCTATAAAAA CAGCGAGGGA
1921 GAACTGGCA GATACCAAC CTCTTCGAGG CACAAGGCAC AACAGGCTGC TCTGGGATTC
1981 TCTTCAGCCA ATCTTCATTG CTCAGATAG ACTTAACTT TCCTTACAAC TAGGTGCTAA
2041 GGGAGTCTCT CTGTCTCTCT GCCTCTTTGT GTGTATGCAT ATTCTCTCTC TCTCTCTCTT
2101 TCTTCTCTG TCTCTCTCT CCTTCTCTC TGCTCTCTC CTCAGCTTTT TGCAAAAATG
2161 CCAGGTGTAA TATAATGCTT ATGACTCGGG AAATATTCTG GGAATGGATA CTGCTTATCT
2221 AACAGCTGAC ACCCTAAAGG TTAGTGTCAA AGCCTCTGCT CCAGCTCTCC TAGCCAATAC
2281 ATTGCTAGTT GGGGTTTGGT TTAGCAAAATG CTTTCTCTTA GACCCAAAGG ACTTCTCTTT
2341 CACACATTCA TTCATTTACT CAGAGATCAT TTCTTTGCAT GACTGCCATG CACTGGATGC
2401 TGAGAGAAAT CACACATGAA CGTAGCCGTC ATGGGGAAGT CACTCATTTT CTCCTTTTTA
2461 CACAGGTGTC TGAAGCAGCC ATGGCAGAAG TACCTGAGCT CGCCAGTGAA ATGATGGCTT
2521 ATTACAGGTC AGTGGAGACG CTGAGACCAG TAACATGAGC AGGTCTCCTC TTTCAAGAGT
2581 AGAGTGTTAT CTGTGCTTGG AGACCAGATT TTTCCCTTAA ATTGCTCTT TCAGTGGCAA
2641 ACAGGGTGCC AAGTAAATCT GATTAAAGA CTACTTTCCC ATTACAAGTC CCTCCAGCCT
2701 TGGGACCTGG AGGCTATCCA GATGTGTTGT TGCAAGGGCT TCCTGCAGAG GCAAATGGGG
2761 AGAAAAGATT CCAAGCCCAC AATACAAGGA ATCCCTTTGC AAAGTGTGGC TTGGAGGGAG
2821 AGGAGAGGCT CAGATTTTAG CTGACTCTGC TGGGCTAGAG GTTAGGCCCTC AAGATCCAAC
2881 AGGAGAGACC AGGCTGCCA CCTGCCAGG CTAGAATCTG CCTTCTGGAC TGTCTGGCC
2941 ATATCACTGT GAAACTTGCC AGGTGTTTCA GGCAGCTTTG AGAGGCAGGC TGTTTGCAGT
3001 TTCTTATGAA CAGTCAAGTC TTGTACACAG GGAAGGAAAA ATAAACCTGT TTAGAAGACA
3061 TAATTGAGAC ATGTCCCTGT TTTTATTACA GTGGCAATGA GGATGACTTG TTCTTTGAAG
3121 CTGATGGCCC TAAACAGATG AAGGTAAGAC TATGGGTTTA ACTCCCAACC CAAGGAAGGG
3181 CTCTAACACA GGGAAAGCTC AAAGAAGGGA GTTCTGGGCC ACTTTGATGC CATGGTATTT
3241 TGTTTTAGAA AGACTTTAAC CTCTCCAGT GAGACACAGG CTGCACCACT TGCTGACCTG
3301 GCCACTTGGT CATCATATCA CCACAGTCAC TCACTAACGT TGGTGGTGGT GGCCACACTT
3361 GGTGGTGACA GGGGAGGAGT AGTGATAATG TTCCCATTTT ATAGTAGGAA GACAACCAAG
3421 TCTTCAACAT AAATTTGATT ATCCTTTTAA GAGATGGATT CAGCCTATGC CAATCACTTG
3481 AGTTAACTC TGAACCAAG AGATGATCTT GAGAACTAAC ATATGTCTAC CCCTTTTGAG
3541 TAGAATAGTT TTTTGCTACC TGGGGTGAAG CTTATAACAA CAAGACATAG ATGATATAAA
3601 CAAAAGATG AATTGAGACT TGAAGAAAA CCATTCATT GCTGTTTGAC CTGACAAAGT
3661 CATTTTACCC GCTTTGGACC TCATCTGAAA AATAAAGGGC TGAGCTGGAT GATCTCTGAG
3721 ATTCCAGCAT CTGCAACCT CCAGTTCTGA AATATTTTCA GTGTAGCTA AGGGCATTTG
3781 GGCAGCAAT GGTCATTTT CAGACTCATC CTTACAAAGA GCCATGTTAT ATTCTGTCTG
3841 TCCCTTCTGT TTTATATGAT GCTCAGTAGC CTTCTAGGT GCCCAGCCAT CAGCCTAGCT
3901 AGGTCAGTTG TGCAAGTTGG AGGCAGCCAC TTTTCTCTGG CTTATTTTAA TTCCAGTTTG
3961 TGATAGCCTC CCTAGCCTC ATAATCCAGT CCTCAATCTT GTTAAAAACA TATTTCTTTA
4021 GAAGTTTTTAA GACTGGCATA ACTTCTTGGC TGCACTGTG GGAGGAGCCC ATTGGCTTGT
4081 CTGCCTGGCC TTTGCCCCC ATTGCCTCTT CCAGCAGCTT GGCTCTGCTC CAGGCAGGAA
4141 ATTCTCTCCT GCTCAACTTT CTTTGTGCA CTTACAGGTC TCTTAACTG TCTTCAAGC

4201 CTTTGAACCA TTATCAGCCT TAAGCAACC TCAGTGAAGC CTTAATACGG AGCTTCTCTG
4261 AATAAGAGGA AAGTGGTAAC ATTTACACAA AAGTACTCTC ACAGGATTTG CAGAATGCCT
4321 ATGAGACAGT GTTATGAAAA AGGAAAAAAA AGAACAGTGT AGAAAAATTG AATACTTGCT
4381 GAGTGAGCAT AGGTGAATGG AAAATGTTAT GGTCATCTGC ATGAAAAAGC AAATCATAGT
4441 GTGACAGCAT TAGGGATACA AAAAGATATA GAGAAGGTAT ACATGTATGG TGTAGGTGGG
4501 GCATGTACAA AAAGATGACA AGTAGAATCG GGATTATTTC TAAAGAATAG CCTGTAAGGT
4561 GTCCAGAAGC CACATTCTAG TCTTGAGTCT GCCTCTACCT GCTGTGTGCC CTTGAGTACA
4621 CCCTTAACCT CCTTGAGCTT CAGAGAGGGA TAATCTTTTT ATTTTATTTT ATTTTATTTT
4681 GTTTTGTTTT GTTTTGTTTT GTTTTATGAG ACAGAGTCTC ACTCTGTTGC CCAGGCTGGA
4741 GTGCAGTGGT ACAATCTTGG CTTACTGCAT CCTCCACCTC CTGAGTTCAA GCGATTCTCC
4801 TTCCTCAGT TCCTGAATAG CTAGGATTAC AGGTGCACCC CACCACACC AGCTAATTTT
4861 TGTATTTTGA GTAGAGAAGG GGTTCGCCA TGTGGCCAG GCTGGTTTTG AAGTCCTGAC
4921 CTAATGATT CATCCACCTC GGCTTCCCAA AGTGTGCGGA TTACAGGCAT GAGCCACCAC
4981 GCCTGGCCCA GAGAGGGATG ATCTTTAGAA GCTCGGGATT CTTTCAAGCC CTTTCTCCT
5041 CTCTGAGCTT TCTACTCTCT GATGTCAAAG CATGGTTCCT GGCAGGACCA CCTCACCAGG
5101 CTCCTCCTCT CGCTCTCTCC GCAGTGCTCC TTCCAGGACC TGGACCTCTG CCCTCTGGAT
5161 GCGGGCATCC AGCTACGAAT CTCGACACC CACTACAGCA AGGGCTTCAG GCAGGCGCG
5221 TCAGTTGTTG TGGCCATGGA CAAGCTGAGG AAGATGCTGG TTCCCTGCCC ACAGACCTTC
5281 CAGGAGAAATG ACCTGAGCAC CTTCTTTCCC TTCATCTTTG AAGAAGGTAG TTAGCCAAGA
5341 GCAGGCAGTA GATCTCCACT TGTGTCCTCT TGGAGTCAT CAAGCCCCAG CCAACTCAAT
5401 TCCCCCAGAG CCAAAGCCTT TAAAGGTAG AAGGCCAGC GGGGAGACAA AACAAGAAG
5461 GCTGGAAACC AAGCAATCA TCTCTTTAGT GGAACATAT CTTAAAGAAG ATCTTGATGG
5521 CTAATGACAT TTGCAACTCC CTCACTCTTT CTCAGGGGCC TTTCACTTAC ATTGTCACCA
5581 GAGGTTCTGA ACCTCCCTGT GGGCTAGTGT TATGACCATC ACCATTTTAC CTAAGTAGCT
5641 CTGTTGCTCG GCCACAGTGA GCAGTAATAG ACCTGAAGCT GGAACCCATG TCTAATAGTG
5701 TCAGGTCCAG GTTCTTAGC CACCCACTC CCAGCTTCAT CCCTACTGGT GTTGTCATCA
5761 GACTTTGACC GTATATGCTC AGGTGTCCTC CAAGAAATCA AATTTTGCCA CCTCGCCTCA
5821 CGAGGCCTGC CCTTCTGATT TTATACCTAA ACAACATGTG CTCCACATTT CAGAACCTAT
5881 CTTCTTCGAC ACATGGGATA ACGAGGCTTA TGTGCACGAT GCACCTGTAC GATCACTGAA
5941 CTGCACGCTC CGGGACTCAC AGCAAAAAAG CTTGGTGATG TCTGGTCCAT ATGAAGTAA
6001 AGCTCTCCAC CTCAGGGAC AGGATATGGA GCAACAAGGT AAATGGAAAC ATCCTGGTTT
6061 CCCTGCCTGG CCTCCTGGCA GCTTGCTAAT TCTCCATGTT TTAACAAAG TAGAAAGTTA
6121 ATTTAAGGCA AATGATCAAC ACAAGTGAAG AAAAATATTA AAAAGGAATA TACAACTTT
6181 GGTCTTAGAA ATGGCACATT TGATTGCACT GGCCAGTGCA TTTGTTAACA GGAGTGTGAC
6241 CCTGAGAAAT TAGACGGCTC AAGCACTCCC AGGACCATGT CCACCCAAGT CTCTTGGGCA
6301 TAGTGCAGTG TCAATTCTTC CACAATATGG GGTCATTTGA TGGACATGGC CTAAGTGCCT
6361 GTGGGTTCTC TCTTCTGTT GTTGAGGCTG AAACAAGAGT GCTGGAGCGA TAATGTGTCC
6421 ATCCCCCTCC CCAGTCTTCC CCCCTTGCCC CAACATCCGT CCCACCCAAT GCCAGTGGT
6481 TCCTTGTAGG GAAATTTTAC CGCCAGCAG GAACCTATAT CTCTCCGCTG TAACGGGCAA
6541 AAGTTTCAAG TGGCGTGAAC CCATCATTAG CTGTGGTGAT TCGCCTGGCA TCGTGCCACA
6601 GTAGCCAAAG CCTCTGCACA GGAGTGTGGG CAACCTAAGGC TGCTGACTTT GAAGGACAGC
6661 CTCACTCAGG GGGGAAGCTAT TTGCTCTCAG CCAGGCCAAG AAAATCCTGT TTCTTTGGAA
6721 TCGGGTAGTA AGAGTGATCC CAGGCGCTCC AATTGACACT GCTGTGACTG AGGAAGATCA
6781 AAATGAGTGT CTCTCTTTGG AGCCACTTTC CCAGCTCAGC CTCTCCTCTC CCAGTTCTT
6841 CCCATGGGCT ACTCTCTGTT CCTGAAACAG TTCTGGTGCC TGATTTCTGG CAGAAGTACA
6901 GCTTCACTCC TTTCTTTTCC TTCCACATTG ATCAAGTTGT TCCGCTCCTG TGGATGGGCA
6961 CATTGCCAGC CAGTGACACA ATGGCTTCCT TCCTTCTTTC CTTTCCATTT TAAATGTAG
7021 ACCTCTTTTC ATTCTCCGTT CTTACTGCTA TGAGGCTCTG AGAAACCTC AGGCCCTTGA
7081 GGGGAAACCC TAAATCAACA AAATGACCCT GCTATTGTCT GTGAGAAGTC AAGTTATCCT
7141 GTGTCTTAGG CCAAGGAACC TCACTGTGGG TTCCACAGA GGCTACCAAT TACATGTATC
7201 CTAATCTCGG GGCTAGGGT TGGGGTGACC CTGCATGCTG TGTCCCTAAC CACAAGACCC
7261 CCTTCTTTCT TCAGTGGTGT TCTCCATGTC CTTTGTACAA GGAGAAGAAA GTAATGACAA
7321 AATACCTGTG GCCTTGGGCC TCAAGGAAAA GAACTGTGAC CTGTCTGCG TGTTGAAAGA
7381 TGATAAGCCC ACTCTACAGC TGGAGGTAAG TGAATGCTAT GGAATGAAGC CCTTCTCAGC
7441 CTCCTGCTAC CACTTATTCC CAGACAATTC ACCTTCTCCC CGCCCCATC CCTAGGAAAA
7501 GCTGGGAACA GGTCTATTG ACAAGTTTTG CATTAATGTA AATAAATTTA ACATAATTTT
7561 TAACTGCGTG CAACCTTCAA TCCTGCTGCA GAAAATTAAA TCATTTTGCC GATGTTATTA
7621 TGTCCTACCA TAGTTACAAC CCAACAGAT TATATATTGT TAGGCTGCT CTCATTGAT
7681 AGACACCTTG GGAATAGAT GACTTAAAGG GTCCCATAT CACGTCCACT CCACTCCCAA
7741 AATCACCACC ACTATCACCT CCAGCTTTCT CAGCAAAAGC TTCATTTCCA AGTTGATGTC
7801 ATTCTAGGAC CATAAGGAAA AATACAATAA AAAGCCCTG GAAACTAGGT ACTTCAAGAA
7861 GCTCTAGCTT AATTTTACC CCCCCAAAAA AAAAAATTC TCACCTACAT TATGCTCCTC

7921 AGCATTTGGC ACTAAGTTTT AGAAAAGAAG AAGGGCTCTT TTAATAATCA CACAGAAAGT
7981 TGGGGGCCCC GTTACAACCTC AGGAGTCTGG CTCCTGATCA TGTGACCTGC TCGTCAGTTT
8041 CCTTTCTGGC CAACCCAAAG AACATCTTTC CCATAGGCAT CTTTGTCCCT TGCCCCACAA
8101 AAATTCTTCT TTCTCTTTTCG CTGCAGAGTG TAGATCCCAA AAATTACCCA AAGAAGAAGA
8161 TGGAAAAGCG ATTTGTCTTC AACAGATAG AAATCAATAA CAAGCTGGAA TTTGAGTCTG
8221 CCCAGTTCCC CAACTGGTAC ATCAGCACCT CTCAGCAGA AAACATGCCC GTCTTCTCGG
8281 GAGGGACCAA AGGCGGCCAG GATATAACTG ACTTCACCAT GCAATTTGTG TCTTCTTAAA
8341 GAGAGCTGTA CCCAGAGAGT CCTGTGCTGA ATGTGGACTC AATCCCTAGG GCTGGCAGAA
8401 AGGGAACAGA AAGGTTTTTG AGTACGGCTA TAGCCTGGAC TTTCTGTG TCTACACCAA
8461 TGCCCAACTG CCTGCCTTAG GGTAGTGCTA AGAGGATCTC CTGTCCATCA GCCAGGACAG
8521 TCAGCTCTCT CTTTCAGGG CCAATCCCCA GCCCTTTTGT TGAGCCAGGC CTCTCTCACC
8581 TCTCCTACTC ACTTAAAGCC CGCCTGACAG AAACCACGGC CACATTTGGT TCTAAGAAAC
8641 CCTCTGTCAT TCGCTCCAC ATTCTGATGA GCAACCGCTT CCCTATTTAT TTATTTATTT
8701 GTTTGTTTTT TTTGATTCAT TGGTCTAATT TATTCAAAGG GGGCAAGAAG TAGCAGTGTC
8761 TGAAAAGAG CCTAGTTTTT AATAGCTATG GAATCAATTC AATTGGGACT GGTGTGCTCT
8821 CTTTAAATCA AGTCCTTTAA TTAAGACTGA AAATAATATA GCTCAGATTA TTTAAATGGG
8881 AATATTTATA AATGAGCAAA TATCATACTG TTCAATGGTT CTGAAATAAA CTCCTACTGAA
8941 GAAAAAAGAA AAAGGGTCTC TCCTGATCAT TGAAGTGTCT GATTGACACT GACAGTAAGC
9001 AAACAGGCTG TGAGAGTTCT TGGGACTAAG CCCACTCCTC ATTGCTGAGT GCTGCAAGTA
9061 CTTAGAAATA TCCTTGCCCA CCGAAGACTA TCCTCCTCAC CCATCCCTTT TATTTCTGTT
9121 TTCAACAGAA GGATATTCAG TGCACATCTG GAACAGGATC AGCTGAAGCA CTGAGGGAG
9181 TCAGGACTGG TAGTAACAGC TACCATGATT TATCTATCAA TGCACCAAAC ATCTGTTGAG
9241 CAAGCGCTAT GTACTAGGAG CTGGGAGTAC AGAGATGAGA ACAGTCACAA GTCCCTCCTC
9301 AGATAGGAGA GGCAGCTAGT TATAAGCAGA ACAAGGTAAC ATGACAAGTA GAGTAAGATA
9361 GAAGAACGAA GAGGAGTAGC CAGGAAGGAG GGAGGAGAAC GACATAAGAA TCAAGCCTAA
9421 AGGGATAAAG AGAAGATTTT CACACATGGG CTGGGCAAT TGGGTGTCGG TTACGCCTGT
9481 AATCCAGCA CTTTGGGTGG CAGGGGCAGA AAGATCGCTT GAGCCCAGGA GTTCAAGACC
9541 AGCCTGGGCA ACATAGTGAG ACTCCCATCT CTACAAAAAA TAAATAAATA AATAAAACAA
9601 TCAGCCAGGC ATGCTGGCAT GCACCTGTAG TCCTAGCTAC TTGGGAAGCT GACACTGGAG
9661 GATTGCTTGA GCCCAGAAGT TCAAGACTGC AGTGAGCTTA TCCGTTGACC TGCAGGTCGA
9721 C

(2) INFORMATION FOR SEQ ID NO:2513:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1496 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2513:

1 ACAACCTTT TCGAGGCAAA AGGCAAAAAA GGCTGCTCTG GGATTCTCTT CAGCCAATCT
61 TCAATGCTCA AGTGTCTGAA GCAGCCATGG CAGAAGTACC TAAGCTCGCC AGTGAAATGA
121 TGCTTATTA CAGTGGAAT GAGGATGACT TGTCTTTTGA AGCTGATGGC CCTAAACAGA
181 TGAAGTGCTC CTTCAGGAC CTGGACCTCT GCCCTCTGGA TGGCGGCATC CAGCTACGAA
241 TCTCCGACCA CCACTACAGC AAGGGCTTCA GGCAGGCCGC GTCAGTTGTT GTGGCCATGG
301 ACAAGCTGAG GAAGATGCTG GTTCCCTGCC CACAGACCTT CCAGGAGAAT GACCTGAGCA
361 CCTTCTTTCC CTTTCTCTTT GAAGAAGAAC CTATCTTCTT CGACACATGG GATAACGAGG
421 CTTATGTGCA CGATGCACCT GTACGATCAC TGAATGCAC GCTCCGGGAC TCACAGCAAA
481 AAAGCTTGGT GATGTCTGGT CCATATGAAC TGAAAGCTCT CCACCTCCAG GGACAGGATA
541 TGGAGCAACA AGTGGTGTTT TCCATGTCTT TTGTACAAGG AGAAGAAAGT AATGACAAAA
601 TACCTGTGGC CTGGGCTCTC AAGGAAAAGA ATCTGTACCT GTCTGCGTG TTGAAAGATG
661 ATAAGCCCAC TCTACAGCTG GAGAGTGTAG ATCCCAAAAA TTACCCAAAG AAGAAGATGG
721 AAAAGCGATT TGCTTCAAC AAGATAGAAA TCAATAACAA GCTGGAATTT GAGTCTGCCC
781 AGTTCCCAAA CTGGTACATC AGCACCTCTC AAGCAGAAAA CATGCCCGTC TTCTGGGAG
841 TGACCAAAAG CGGCCAGGAT ATAAGTACTG TCAACATGCA ATTTGTGTCT TCCTAAAGAG
901 AGCTGTACCC AGAGATCCTT GTGCTGAATG TGGACTCAAT CCCTAGGGCT GGCAGAAAGG
961 GAACAGAAAG GTTTTGTAGT ACGGCTATAG CCTGGACTTT CCGTGTGTCT ACACCAATGC
1021 CCAACTGCCT GCCTTAGGGT AGTGCTAAGA GGATCTCCTG TCCATCAGCC AGGACAGTCA
1081 GCTCTCTCTT TTAGGGCCA ATCCAGCCC TTTTGTGAG CCAGGCCTCT CTCACCTCTC
1141 CTACTCACTT AAAGCCCGCC TGACAGAAAC CAGGCCACAT TTTGGTTCTA AGAAACCTC
1201 CTCTGTCATT CGCTCCACA TTCTGATGAG CAACCGCTTC CCTATTTATT TATTTATTTG
1261 TTTGTTTGTG TTGATTCATT GGTCTAATTT ATTCAAAGGG GGCAAGAAGT AGCAGTGTCT
1321 GTAAAAGAGC CTAGTTTTTA ATAGCTATGG AATCAATTCA ATTTGGACTG GTGTGCTCTC

1381 TTAAATCAAA GTCCTTTAAT TAAGACTGAA AATATATAAG CTCAGATTAT TTAATGGGA
1441 ATATTTATAA ATGAGCAAAT ATCATACTGT TCAATGGTTC TCAAATAAAC TTCACT

(2) INFORMATION FOR SEQ ID NO:2514:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 720 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2514:

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1 CTGGCAGGAG TAGCAGCTGC CCCTTGGCGC GACTGCTGGA GCCGCGAACT AGAGAAACAC
61 AGACACGCCT CATAGAGCAA CGGCGTCTCT CGGAGCGTGG AGCCCGCCAA GCTCGAGCTG
121 AGCTTTCGCT TGCCGTCCAC CACTGCCCAC ACTGTCGTTT GCTGCCATCG CAGACCTGCT
181 GCTGACTTCC ATCCCTCTGG ATCCGCGCAAG GGCCTGCGAT TTGACAATG TCAAGATTTA
241 CCGTATATCC CTGTTTGTTT GGATACACCA GTGACGTCCA CTTCTAGAAG ACAAAGTTAT
301 ATTACTTAAA CAACCAAAGA TATGAAACTA TCCATGAAGA ACAATATTTAT CAATACACAG
361 CAGTCTTTTG TAACCATGCC CAATGTGATT GTACCAGATA TTGAAAAGGA AATACGAAGG
421 ATGGAAAATG GAGCATGCAG CTCCTTTTCT GAGGATGATG ACAGTGCCCTC TACATCTGAA
481 GAATCAGAGA ATGAAAACCC TCATGCAAGG GGTTCCTTTA GTTATAAGTC ACTCAGAAAG
541 GGAGGACCAT CACAGAGGGA GCAGTACCTG CCTGGTGCCA TTGCCATTTT TAATGTGAAC
601 AACAGCGACA ATAAGGACCA GGAACCAGAA GAAAAAAGA AAAAGAAAAA AGAAAAGAAG
661 AGCAAGTCAG ATGATAAAAA CGAAAATAAA AACGACCCAA AGAAGAAGAT GGAAAAGCGA

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(2) INFORMATION FOR SEQ ID NO:2515:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2002 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2515:

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1 atggcacaag ttccagacat gtttgaagac ctgaagaact gttacagtga aaatgaagaa
61 gacagttcct ccattgatca tctgtctctg aatcagaaat ctttctatca tgtaagctat
121 ggccactctc atgaaggctg catggatcaa tctgtgtctc tgagtatctc tgaaacctct
181 aaaacatcca agcttacctt caaggagagc atggtggtag tagcaaccaa cggaagggtt
241 ctgaagaaga gacggttgag tttaagccaa tccatcactg atgatgacct ggaggccatc
301 gccaatgact cagaggaaga aatcatcaag cctaggtcag caccttttag cttcctgagc
361 aatgtgaaat acaactttat gaggatcatc aaatacgaat tcatcctgaa tgacgacctc
421 aatcaaagta taattcgagc caatgatcag tacctcacgg ctgctgcatt acataatctg
481 gatgaagcag tgaaatttga catgggtgct tataagtcac caaaggatga tgctaaaatt
541 accgtgattc taagaatctc aaaaactcaa ttgtatgtga ctgcccaga tgagacccaa
601 ccagtgtgct tgaaggagat gcctgagata cccaaaacca tcacaggtag tgagaccaac
661 ctctcttctc tctgggaaac tcacggcact aagaactatt tcacatcagt tgcccatcca
721 aacttgttta ttgccacaaa gcaagactac tgggtgtgct tggcaggggg gccaccctct
781 atcactgact ttcagatact ggaaaaccag gcgtaggtct ggagtctcac ttgtctcact
841 tgtgcagtgt tgacagttca tatgtaccat gtacatgaag aagctaaatc ctttactgtt
901 agtcatttgc tgagcatgta ctgagccttg taattctaaa tgaatgttta cactctttgt
961 aagagtggaa ccaacactaa catataatgt tgttatttaa agaacacctc atattttgca
1021 tagtaccat cattttaatt attattcttc ataacaattt taggaggacc agagctactg
1081 actatggcta ccaaaaagac tctaccata ttacagatgg gcaaattaag gcataagaaa
1141 actaagaaat atgcacaata gcagttgaaa caagaagcca cagacctagg atttcatgat
1201 ttcatttcaa ctgtttgcct tctgctttta agttgctgat gaactcttaa tcaaatagca
1261 taagtcttct ggacctcagt tttatcattt tcaaaatgga gggaataata cctaagcctt
1321 cctgccgcaa cagtttttta tgctaatcag ggaggtcatt ttggtaaaat acttctcgaa
1381 gccgagcctc aagatgaagg caaagcacga aatgttattt tttaattatt atttatatat
1441 gtatttataa atatatattaa gataattata atatactata tttatgggaa ccccttcac
1501 ctctgagtgt gaccaggcat cctccacaat agcagacagt gttttctggg ataagtaagt
1561 ttgatttcat taatacaggg cattttggtc caagttgtgc ttatccata gccaggaac
1621 tctgcattct agtacttggg agacctgtaa tcatataata aatgtacatt aattaccttg
1681 agccagtaat tgggtccgac tttgactctt ttgccattaa acttacctgg gcattcttgt
1741 ttcattcaat tccacctgca atcaagtcct acaagctaaa attagatgaa ctcaactttg
1801 acaaccatag accactgtta tcaaaacttt cttttctgga atgtaatcaa tgttcttctt
1861 aggttctaaa aattgtgatc agaccataat gttacattat tatcaacaat agtgattgat
1921 agagtgttat cagtcataac taaataaagc ttgcaagtga gggagtcatt tcattggcgt

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1981 ttgagtcagc aaagaagtca ag

(2) INFORMATION FOR SEQ ID NO:2516:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2027 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2516:

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1 AGCTGCCAGC CAGAGAGGGA GTCATTTCAT TGGCGTTTGA GTCAGCAAAG AAGTCAAGAT
61 GGCCAAAGTT CCAGACATGT TTGAAGACCT GAAGAACTGT TACAGTGAAG ATGAAGAAGA
121 CAGTTCTCTC ATTGATCATC TGTCTCTGAA TCAGAAATCC TTCTATCATG TAAGCTATGG
181 CCCACTCCAT GAAGGCTGCA TGGATCAATC TGTGTCTCTG AGTATCTCTG AAACCTCTAA
241 AACATCCAAG CTTACCTTCA AGGAGAGCAT GGTGGTAGTA GCAACCAACG GGAAGGTTCT
301 GAAGAAGAGA CGGTTGAGTT TAAGCCAATC CATCACTGAT GATGACCTGG AGGCCATCCG
361 CAATGACTCA GAGGAAGAAA TCATCAAGCC TAGGTCATCA CCTTTTAGCT TCCTGAGCAA
421 TGTGAAATAC AACTTTATGA GGATCATCAA ATACGAATTC ATCCTGAATG ACGCCCTCAA
481 TCAAAGTATA ATTCGAGCCA ATGATCAGTA CCTACGGCT GCTGCATTAC ATAATCTGGA
541 TGAAGCAGTG AAATTGACA TGGGTGCTTA TAAGTATCA AAGGATGATG CTAAATTTAC
601 CGTGATTCTA AGAATCTCAA AAATCAATT GTATGTGACT GCCCAAGATG AAGACCAACC
661 AGTGCTGCTG AAGGAGATGC CTGAGATACC CAAAACCATC ACAGGTAGTG AGACCAACCT
721 CCTCTTCTTC TGGGAAACTC ACGGCACTAA GAACTATTTT ACATCAGTTG CCCATCCAAA
781 CTGTGTTATT GCCACAAAGC AAGACTACTG GGTGTGCTTG GCAGGGGGGC CACCCTCTAT
841 CACTGACTTT CAGATACTGG AAAACCAGGC GTAGGTCTGG AGTCTCACTT GTCTCACTTG
901 TGCAGTGTG ACAGTTCATA TGTACCATGT ACATGAAGAA GCTAAATCCT TTAAGTTAG
961 TCATTTGCTG AGCATGTACT GAGCCTTGTA ATTCTAAATG AATGTTTACA CTCTTTGTAA
1021 GAGTGGAACC AACACTAACA TATAATGTTG TTATTAAAG AACACCTAT ATTTTGCATA
1081 GTACCAATCA TTTTAATTAT TATCTTCAT AACATTTTA GGAGGACCAG AGCTACTGAC
1141 TATGGCTACC AAAAAGACTC TACCCATATT ACAGATGGGC AAATTAAGGC ATAAGAAAAC
1201 TAAGAAATAT GCACAATAGC AGTCGAAACA AGAAGCCACA GACCTAGGAT TTCATGATTT
1261 CATTCAACT GTTTGCCTTC TGCTTTAAG TTGCTGATGA ACTCTTAATC AAATAGCATA
1321 AGTTTCTGGG ACCTCAGTTT TATCATTTTC AAAATGGAGG GAATAATACC TAAGCCTTCC
1381 TGCCGCAACA GTTTTTATG CTAATCAGGG AGGTCATTTT GGTAAATATC TTCTCGAAGC
1441 CGAGCCTCAA GATGAAGGCA AAGCACGAAA TGTTATTTT TAATTATTAT TTATATATGT
1501 ATTTATAAAT ATATTAGA TAATTATAAT ATACTATATT TATGGGAACC CCTTCATCCT
1561 CTGAGTGTGA CCAGGCATCC TCCACAATAG CAGACAGTGT TTTCTGGAT AAGTAAGTTT
1621 GATTTCAATTA ATACAGGGCA TTTTGGTCCA AGTTGTGCTT ATCCCATAGC CAGGAAACTC
1681 TGCATTCTAG TACTTGGGAG ACCTGTAATC ATATAATAAA TGTACATTAA TTACCTTGAG
1741 CCAGTAATTG GTCCGATCTT TGACTCTTTT GCCATTAAAC TTACCTGGGC ATTCTTGT
1801 CATTCAATTC CACCTGCAAT CAAGTCCTAC AAGCTAAAT TAGATGAAT CAACCTTGAC
1861 AACCATGAGA CCACTGTTAT CAAACTTTT TTTTCTGGAA TGTAATCAAT GTTCTTCTA
1921 GGTCTATAAA ATTGTGATCA GACCATAATG TTACATTATT ATCAACAATA GTGATTGATA
1981 GAGTGTTATC AGTCATAACT AAATAAGCT TGCAACAAAA TTCTCTG
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(2) INFORMATION FOR SEQ ID NO:2517:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: 29433 nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2517:

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1 AAGCTTCTAC CCTAGTCTGG TGCTACACTT ACATGCTTA CATCCAAGTG TGGTTATTTT
61 TGTGGCTCCT GTTATAACTA TTATAGCACC AGGTCTATGA CCAGGAGAAT TAGACTGGCA
121 TTAAATCAGA ATAAGAGATT TTGCACCTGC AATAGACCTT ATGACACCTA ACCAACCCCA
181 TTATTTACAA TTAACAGGA ACAGAGGGAA TACTTTATCC AACTCACACA AGCTGTTTTT
241 CTCCCAGATC CATGCTTTTT TGCGTTTATT ATTTTITAGA GATGGGGGCT TCACTATGTT
301 GCCCACACTG GACTAAACT CTGGGCTCA AGTGATTGTC CTGCCTCAGC CTCCTGAATA
361 GCTGGGACTA CAGGGGCATG CCATCACACC TAGTTCATTT CCTCTATTTA AAATATACAT
421 GGCTTAAACT CCAACTGGGA ACCCAAAACA TTCATTTGCT AAGAGTCTGG TGTTCTACCA
481 CCTGAAC TAGTGGCCACA GGAATTATAA AAGCTGAGAA ATTCTTTAAT AATAGTAACC
541 AGGCAACATC ATTGAAGGCT CATATGTAAG AATCCATGCC TTCTTTCTC CCAATCTCCA
601 TTCCCAACT TAGCCACTGG TTCTGGCTGA GGCCTTACGC ATACCTCCCG GGGCTTGAC
661 ACACCTTCTT CTACAGAAGA CACACCTTGG GCATATCCTA CAGAAGACCA GGCTTCTCTC
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721 TGGTCTCTGG TAGAGGGCTA CTTTACTGTA ACAGGGCCAG GGTGGAGAGT TCTCTCCTGA
781 AGCTCCATCC CCTCTATAGG AAATGTGTG ACAATATTCA GAAGAGTAAG AGGATCAAGA
841 CTTCTTTGTG CTCAAATACC ACTGTTCTCT TCTCTACCCT GCCCTAACCA GGAGCTTGTC
901 ACCCCAAACT CTGAGGTGAT TTATGCCTTA ATCAAGCAAA CTTCCCTCTT CAGAAAAGAT
961 GGCTCATTTT CCCTCAAAAG TTGCCAGGAG CTGCCAAGTA TTCTGCCAAT TCACCCTGGA
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 2221 AACAGCTGAC ACCCTAAAGG TTAGTGTCAA AGCCTCTGCT CCAGCTCTCC TAGCCAATAC
 2281 ATTGCTAGTT GGGGTTTGGT TTAGCAAATG CTTTCTCTA GACCCAAAGG ACTTCTCTTT
 2341 CACACATTCA TTCATTTACT CAGAGATCAT TTCTTTGCAT GACTGCCATG CACTGGATGC
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 2461 CACAGGTGTC TGAAGCAGCC ATGGCAGAAG TACCTGAGCT CGCCAGTGAA ATGATGGCTT
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 2581 AGAGTGTTAT CTGTGCTTGG AGACCAGATT TTTCCCTTAA ATTGCCTCTT TCAGTGGCAA
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1681 TGCATTCTAG TACTTGGGAG ACCTGTAATC ATATAATAAA TGTACATTAA TTACCTTGAG
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(2) INFORMATION FOR SEQ ID NO:2518:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1308 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2518:

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61 AATGTTGCGC TTGTACGTGT TGGTAATGGG AGTTTCTGCC TTCACCTTC AGCCTGCGGC
121 ACACACAGGG GCTGCCAGAA GCTGCCGTT TCGTGGGAGG CATTACAAGC GGGAGTTCAG
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 721 CACTAGGAGT ATTGAGCTAC GCATCAAGAA AAAAAAGAA GAGACCATTC CTGTGATCAT
 781 TTCCCCCCTC AAGACCATAT CAGCTTCTCT GGGGTCAAGA CTGACAATCC CGTGAAGGT
 841 GTTCTGCGGA ACCGGCACAC CCTTAACCAC CATGCTGTGG TGGACGGCCA ATGACACCCA
 901 CATAGAGAGC GCCTACCCGG GAGGCCGCGT GACCGAGGGG CCACGCCAGG AATATTGAGA
 961 AAATAATGAG AACTACATTG AAGTGCCATT GATTTTGTAT CCTGTACAA GAGAGGATTT
 1021 GCACATGGAT TTTAAATGTG TTGTCCATAA TACCCTGAGT TTTCAGACAC TACGCACCAC
 1081 AGTCAAGGAA GCCTCCTCCA CGTTCTCCTG GGGCATTGTG CTGGCCCCAC TTTCACTGGC
 1141 CTTCTTGGTT TTGGGGGGAA TATGGATGCA CAGACGGTGC AAACACAGAA CTGGAAAAGC
 1201 AGATGGTCTG ACTGTGCTAT GGCTCATCA TCAAGACTTT CAATCCTATC CCAAGTGAAA
 1261 TAAATGGAAT GAAATAATTC AAACACAAAA AAAAAAAAAA AAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO:2519:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2519:

1 GCCGGAGCCG ACTCGGAGCG CGCGGCGCGG CCGGGAGGAG CCGAGCGCGC CGGGCGCGGC
 61 GTGGGGGCGC CGGCTGCCCC GCGCGCCCAG GGAGCGGCAG GAATGTGACA ATCGCGCGCC
 121 CGCACCGTAG CACTCCTCGC TCGGCTCCTA GGGCTCTCGC CCTCTGAGCT GAGCCGGGTT
 181 CCGCCCGGGC TGGGATCCCA TCACCCTCCA CGGCCGTCGG TCCAGGTAGA CGCACCTCT
 241 GAAGATGGTG ACTCCCTCCT GAGAAGCTGG ACCCCTTGGT AAAAGACAAG GCCTTCTCCA
 301 AGAAGAATAT GAAAGTGTTA CTCAGACTTA TTTGTTTCAT AGCTCTACTG ATTTCTTCTC
 361 TGGAGGCTGA TAAATGCAAG GAACGTGAAG AAAAAATAAT TTTAGTGTCA TCTGCAATG
 421 AAATTGATGT TCGTCCCTGT CCTCTTAACC CAAATGAACA CAAAGGCACT ATAACCTGGT
 481 ATAAAGATGA CAGCAAGACA CCTGTATCTA CAGAACAAGC CTCCAGGATT CATCAACACA
 541 AAGAGAAACT TTGGTTTGTG CTTGCTAAGG TGGAGGATTC AGGACATTAC TATTGCGTGG
 601 TAAGAAATTC ATCTTACTGC CTCAGAATTA AAATAAGTGC AAAATTTGTG GAGAATGAGC
 661 CTAACTTATG TTATAATGCA CAAGCCATAT TTAAGCAGAA ACTACCCGTT GCAGGAGACG
 721 GAGGACTTGT GTGCCCTTAT ATGGAGTTTT TTAATAATGA AAATAATGAG TTACCTAAAT
 781 TACAGTGGTA TAAGGATTGC AAACCTCTAC TTCTTGACAA TATACACTTT AGTGGAGTCA
 841 AAGATAGGCT CATCGTGATG AATGTGGCTG AAAAGCATAG AGGGAACAT ACTTGTCTATG
 901 CATCTACAC ATACTTGGGC AAGCAATATC CTATTACCG GGTAATAGAA TTTATTACTC
 961 TAGAGGAAAA CAAACCCACA AGGCCTGTGA TTGTGAGCCC AGCTAATGAG ACAATGGAAG
 1021 TAGACTTGGG ATCCCAGATA CAATTGATCT GTAATGTCAC CGGCCAGTTG AGTGACATTG
 1081 CTTACTGGAA GTGGAATGGG TCAGTAATTG ATGAAGATGA CCCAGTGCTA GGGGAAGACT
 1141 ATTACAGTGT GGAAAATCCT GCAAACAAAA GAAGGAGTAC CCTCATCACA GTGCTTAATA
 1201 TATCGGAAAT TGAAAGTAGA TTTTATAAAC ATCCATTAC CTGTTTGGCC AAGAATACAC
 1261 ATGGTATAGA TGCAGCATAT ATCCAGTTAA TATATCCAGT CACTAATTTT CAGAAGCACA
 1321 TGATTGGTAT ATGTGTCACG TTGACAGTCA TAATTGTGTG TTCTGTTTTT ATCTATAAAA
 1381 TCTTCAAGAT TGACATTGTG CTTTGGTACA GGGATTCCCT CTATGATTTT CTCCCAATAA
 1441 AAGCTTCAGA TGGAAAGACC TATGACGCAT ATATACTGTA TCCAAAGACT GTTGGGGAAG
 1501 GGTCTACCTC TGACTGTGAT ATTTTGTGTG TTAAGTCTT GCCTGAGGTC TTGGAAAAAC
 1561 AGTGTGGATA TAAGCTGTTT ATTTATGGAA GGGATGACTA CGTTGGGGAA GACATTGTTG
 1621 AGGTCATTAA TGAAAACGTA AAGAAAAGCA GAAGACTGAT TATCATTTTA GTCAGAGAAA
 1681 CATCAGGCTT CAGCTGGCTG GGTGGTTCAT CTGAAGAGCA AATAGCCATG TATAATGCTC
 1741 TTGTTTCAAG TGGAAATAAA GTTGTCTGTC TTGAGCTGGA GAAAATCCAA GACTATGAGA
 1801 AAATGCCAGA ATCGATTAAA TTCATTAAGC AGAAACATGG GGCTATCCGC TGGTCAGGGG
 1861 ACTTTACACA GGGACCACAG TCTGCAAGA CAAGGTTCTG GAAGAATGTC AGGTACCACA
 1921 TGCCAGTCCA GCGACGGTCA CCTTCATCTA AACACCAGTT ACTGTCACCA GCCACTAAGG
 1981 AGAACTGCA AAGAGAGGCT CACGTGCCTC TCGGGTAGCA TGGAGAAGTT GCCAAGAGTT
 2041 CTTTAGGTGC CTCCTGTCTT ATGGCGTTGC AGGCCAGGTT ATGCCTCATG CTGACTTGCA
 2101 GAGTTCATGG AATGTAAC TAATCATCTT TATCCCTGAG GTCACCAGGA ATCAGG

(2) INFORMATION FOR SEQ ID NO:2520:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3464 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2520:

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1  GCCACGTGCT GCTGGGTCTC AGTCCTCCAC TTCCCGTGTC CTCTGGAAGT TGTCAGGAGC
61  AATGTTGCGC TTGTACGTGT TGGTAATGGG AGTTTCTGCC TTCACCCTTC AGCCTGCGGC
121 ACACACAGGG GCTGCCAGAA GCTGCCGGTT TCGTGGGAGG CATTACAAGC GGGAGTTTCTAG
181 GCTGGAAGGG GAGCCTGTAG CCCTGAGGTG CCCCAGGTG CCCTACTGGT TGTGGGCCTC
241 TGTCAGCCCC CGCATCAACC TGACATGGCA TAAAAATGAC TCTGCTAGGA CGGTCCCAGG
301 AGAAGAAGAG ACACGGATGT GGGCCCAGGA CGGTGCTCTG TGGCTTCTGC CAGCCTTGCA
361 GGAGGACTCT GGCACCTACG TCTGCACTAC TAGAAATGCT TCTTACTGTG ACAAATATGTC
421 CATTGAGCTC AGAGTTTTTG AGAATACAGA TGCTTTCCTG CCGTTCATCT CATACCCGCA
481 AATTTTAACC TTGTCAACCT CTGGGGTATT AGTATGCCCT GACCTGAGTG AATTACCCCG
541 TGACAAAACCT GACGTGAAGA TTCAATGGTA CAAGGATTCT CTCTTTTGG ATAAAGACAA
601 TGAGAAATTT CTAAGTGTGA GGGGGACCAC TCACTTACTC GTACACGATG TGGCCCTGGA
661 AGATGCTGGC TATTACCGCT GTGTCTGAC ATTTGCCCAT GAAGGCCAGC AATACACAT
721 CACTAGGAGT ATTGAGCTAC GCATCAAGAA AAAAAAGAA GAGACCATTCT CTGTGATCAT
781 TTCCCCCTC AAGACCATAT CAGCTTCTCT GGGTCAAGA CTGACAATCC CGTGTAAAGT
841 GTTTCTGGGA ACCGGCACAC CCTTAACCAC CATGCTGTGG TGGACGGCCA ATGACACCCA
901 CATAGAGAGC GCCTACCCGG GAGGCCGCGT GACCGAGGGG CCACGCCAGG AATATTCAGA
961 AAATAATGAG AACTACATTG AAGTGCCATT GATTTTTGAT CCTGTACAA GAGAGGATTT
1021 GCACATGGAT TTAAATGTG TTGTCCATAA TACCCTGAGT TTTACAGAC TACGCACCAC
1081 AGTCAAGGAA GCCTCCTCCA CGTTCCTCTG GGGCATTTGT CTGGCCCCAC TTTCACTGGC
1141 CTTCTTGTTT TTGGGGGAA TATGGATGCA CAGACGGTGC AAACACAGAA CTGGAAAGC
1201 AGATGGTCTG ACTGTGCTAT GGCCTCATCA TCAAGACTTT CAATCCTATC CCAAGTAAA
1261 TAAATGGAAT GAAATAATTC AAACACAAAA AAAAAAAAAA AAAAAAAAAA
1  GCCCGAGCCG ACTCGGAGCG CGCGCGCGCG CCGGGAGGAG CCGAGCGCGC CGGGCGCGGC
61  GTGGGGGCGC CGGCTGCCCC GCGCGCCCAG GGAGCGGCAG GAATGTGACA ATCGCGCGCC
121 CGCACCGTAG CACTCCTCGC TCGGCTCCTA GGGCTCTCGC CCTCTGAGCT GAGCCGGGTT
181 CCGCCCCGGC TGGGATCCCA TCACCTCCA CGGCCGTCCG TCCAGGTAGA CGCACCTCT
241 GAAGATGGTG ACTCCCTCCT GAGAAGCTGG ACCCTTGGT AAAAGACAAG GCCTTCTCCA
301 AGAAGAATAT GAAAGTGTTA CTCAGACTTA TTGTTTCAT AGCTCTACTG ATTTCTTCTC
361 TGGAGGCTGA TAAATGCAAG GAACGTGAAG AAAAAATAAT TTTAGTGCA TCTGCAATG
421 AAATTGATGT TCGTCCCTGT CCTCTTAACC CAAATGAACA CAAAGGCACT ATAATTGGT
481 ATAAAGATGA CAGCAAGACA CCTGTATCTA CAGAACAAGC CTCCAGGATT CATCAACACA
541 AAGAGAAACT TTGGTTTGTG CTGCTAAGG TGGAGGATTC AGGACATTAC TATTGCGTGG
601 TAAGAAATTC ATCTTACTGC CTCAGAATTA AAATAAGTGC AAAATTTGTG GAGAATGAGC
661 CTAATTATG TTATAATGCA CAAGCCATAT TTAAGCAGAA ACTACCCGTT GCAGGAGAGC
721 GAGGACTTGT GTGCCCTTAT ATGGAGTTT TTAATAATGA AAATAATGAG TTACCTAAT
781 TACAGTGGTA TAAGGATTGC AAACCTCTAC TTCTTGACAA TATACACTTT AGTGGAGTCA
841 AAGATAGGCT CATCGTGATG AATGTGGCTG AAAAGCATAG AGGGAACAT ACTTGTCTATG
901 CATCCTACAC ATACTTGGGC AAGCAATATC CTATTACCCG GGTAATAGAA TTTATTACTC
961 TAGAGGAAAA CAAACCCACA AGGCCTGTGA TTGTGAGCCC AGCTAATGAG ACAATGGAAG
1021 TAGACTTGGG ATCCCAGATA CAATTGATCT GTAATGTCAC CGGCCAGTTG AGTGACATTG
1081 CTTACTGGAA GTGGAATGGG TCAGTAATTG ATGAAGATGA CCCAGTGCTA GGGGAAGACT
1141 ATTACAGTGT GGAATATCCT GCAACAAAA GAAGGAGTAC CCTCATCACA GTGCTTAATA
1201 TATCGGAAAT TGAAAGTAGA TTTTATAAAC ATCCATTTAC CTGTTTGTGC AAGAATACAC
1261 ATGGTATAGA TGCAGCATAT ATCCAGTTAA TATATCCAGT CACTAATTTT CAGAAGCACA
1321 TGATTGGTAT ATGTGTCACG TTGACAGTCA TAATTGTGTG TTCTGTTTTC ATCTATAAAA
1381 TCTTCAAGAT TGACATTGTG CTTTGGTACA GGGATTCTCT CTATGATTTT CTCCCAATAA
1441 AAGCTTCAGA TGGAAAGACC TATGACGCAT ATATACTGTA TCCAAAGACT GTGGGGAAG
1501 GGTCTACCTC TGAATGTGAT ATTTTGTGT TTAAGTCTT GCCTGAGGTC TTGGAAAAAC
1561 AGTGTGGATA TAAGCTGTTT ATTTATGGAA GGGATGACTA CGTTGGGGA GACATTGTTG
1621 AGGTCATTAA TGAACACGTA AAGAAAAGCA GAAGACTGAT TATCATTTTA GTCAGAGAAA
1681 CATCAGGCTT CAGCTGGCTG GGTGGTTTCT CTGAAGAGCA AATAGCCATG TATAATGCTC
1741 TTGTTTCAAG TGAATTAATA GTTGTCTCTG TTGAGCTGGA GAAAATCCAA GACTATGAGA
1801 AAATGCCAGA ATCGATTAAA TTCATTAAAG AGAAACATGG GGCTATCCGC TGGTCAGGGG
1861 ACTTTACACA GGGACCACAG TCTGCAAGA CAAGGTTCTG GAAGAATGTC AGGTACCACA
1921 TGCCAGTCCA GCGACGGTCA CCTTCATCTA AACACCAGTT ACTGTCACCA GCCACTAAGG
1981 AGAACTGCA AAGAGAGGCT CACGTGCCTC TCGGAGTACA TGGAGAAGTT GCCAAGAGTT
2041 CTTTAGGTGC CTCTGTCTT ATGGCGTTGC AGGCCAGGTT ATGCCTCATG CTGACTTGCA

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2101 GAGTTCATGG AATGTAAC TA TATCATCCTT TATCCCTGAG GTCACCAGGA ATCAGG

(2) INFORMATION FOR SEQ ID NO:2521:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1185 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2521:

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1 GCTCAGGGCA CATGCCTCCC CTCCCCAGGC CGCGGCCAG CTGACCCTCG GGGCTCCCCC
61 GGCAGCGGAC AGGGAAGGGT TAAAGGCCCC CGGCTCCCTG CCCCCTGCCC TGGGGAACCC
121 CTGGCCCTGT GGGGACATGA ACTGTGTTTG CCGCCTGGTC CTGGTCGTGC TGAGCCTGTG
181 GCCAGATACA GCTGTCGCCC CTGGGCCACC ACCTGGCCCC CCTCGAGTTT CCCAGAGACC
241 TCGGGCCGAG CTGGACAGCA CCGTGCTCCT GACCCGCTCT CTCCTGGCGG ACACGCGGCA
301 GCTGGCTGCA CAGCTGAGGG ACAAATTTCC AGCTGACGGG GACCACAACC TGGATTCCCT
361 GCCACCCTG GCCATGAGTG CGGGGGCACT GGGAGCTCTA CAGTCCCAG GTGTGCTGAC
421 AAGGCTGCGA GCGGACCTAC TGTCTACCT GCGGCACGTG CAGTGGCTGC GCCGGGCAGG
481 TGGCTCTTCC CTGAAGACCC TGGAGCCCGA GCTGGGCACC CTGCAGGCCC GACTGGACCG
541 GCTGTGCGC CGGTGACG TCCTGATGTC CCGCCTGGCC CTGCCCCAGC CACCCCCGGA
601 CCCGCCGCGC CCCCCGCTGG CGCCCCCTC CTCAGCCTGG GGGGGCATCA GGGCCGCCCA
661 CGCCATCTG GGGGGGCTGC ACCTGACACT TGA TGGGGC GTAGGGGAC TGCTGCTGCT
721 GAAGACTCGG CTGTGACCCG GGGCCCAAAG CCACCACCGT CCTTCCAAAG CCAGATCTTA
781 TTTATTTATT TATTTTCACTA CTGGGGGCGA AACAGCCAGG TGATCCCCC GCCATTATCT
841 CCCCCTAGTT AGAGACAGTC CTTCCGTGAG GCCTGGGGGA CATCTGTGCC TTATTTATAC
901 TTATTTATTT CAGGAGCAGG GGTGGGAGGC AGGTGGACTC CTGGGTCCCC GAGGAGGAGG
961 GGA TGGGGT CCGGATTCT TGGGTCTCCA AGAAGTCTGT CCACAGACTT CTGCCCTGGC
1021 TCTTCCCAT CTAGCCTGG GCAGGAACAT ATATTATTTA TTTAAGCAAT TACTTTTCAT
1081 GTTGGGGTGG GGACGGAGGG GAAAGGGAAG CCTGGGTTTT TGTACAAAAA TGTGAGAAAC
1141 CTTTGTGAGA CAGAGAACAG GGAATTAAAT GTGTCATACA TATCC
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(2) INFORMATION FOR SEQ ID NO:2522:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6870 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2522:

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1 CAGCTGCGGC ATCCTCTGTC TCAGAGTCTT GGTGTCTCTG TTCCTTTCCC CTCGGGGTCT
61 CCCTGGGTCT CCCCAAGTCC CTCCTGCTGT CTTCTCCCG CTCTCTGATC TCTGACTCCC
121 AGAACCTCTC CCTCTGTCTC CAGGGCTGCC CCTCTGATCC TCTTTGCTTC TCTGGTGTGT
181 CTCTCTGGCT GCCTCCATCT CTGTGGATCT CCGTCTCCCT GTCTCTGTCT CAGTCTGTCC
241 TTCCTCTGT GTGTGTGTGT GTCTCTCTCT CTCTCTCTCC TTCCCTTCCA CTCCTCTTTC
301 CTCCTGCCCT CACCTCTCCA GGCCCTGTC TTGTCCCTCC GTCCGGCCTT TCTCTGCCTT
361 TCCGTCTCTC TGCCCTCCCC TCTCTCTCTG CTAGTCCTGT CCAGCCGGAC CCCACCCAC
421 AGTCGGGCCC CAGCGCTTGA GCCTGAGTGT CTGCTCCGGC CCGTGGAGGT GGAGGGAGGG
481 GACGCCAATG ACCTCACCAG CCCCTCTCCG ACCACCCCC CCTTTCCCTT TTCAACTTTT
541 CCAACTTTTC CTTCCGTGCC CTCCTCCGAG CGCGGCGCG TGAGCCCTGC AAGGCAGCCG
601 CTCCTGTCTGA ATGGAAAAG CAGGCAGGGA GGGTGAGTCA GGATGTGTCA GGCCGGCCCT
661 CCCCTGCCGC CTGCCCCCG CCCGCCGCC CCAGGCCCC TATATAACCC CCCAGGCGTC
721 CAACTCCCT CACTGCCGCG GGCCCTGCTG CTCAGGGCAC ATGCCTCCCC TCCCCAGCCG
781 CGGGCCAGC TGACCTCGG GGCTCCCCCG GCAGCGGACA GGAAGGGTT AAAGGCCCCC
841 GGCTCCCTGC CCCCTGCCCT GGGGAACCCC TGGCCCTGTG GGGACATGAA CTGTAAGTTG
901 GTTCATGGGG AGGGTGAGG GGACAGGGAG GCAGGGAGGA GAGGGACCCA CGGCGGGGGT
961 GGGAGCAGAC CCCGCTGAGT CGCACAGAGA GGGACCGGA GACAGGCAGC CGGGGAGGAG
1021 AGCAGCTTCG GAGACAGGAG GCGCGGAGG AGATGGGCAG AGAGAGACAC AGACAGGAGC
1081 GGATGGAGGC AGCCAATCAG AGGCGCCGCA GGAGGGACGG GCCAGACAGG GCCCAGAGG
1141 AGCGAGACGC GAGACCGAGC AGGGGCGAGG ACGCAGGGAC TGGTGCCGGG AGGAGGTGA
1201 CCCCATCGA CCCAGGCCCG AGGAGCCCC CGGGGACCGG GAGACTCCCT GGGATTCCGG
1261 CAGAGAGGCT CCGGAGGGAA ACTGAGGCAG GGTCCGCGGA GAGCGGAGCA AGCCAGGGAG
1321 TAGCGACCCC AGCCGGGGGG AGGAGAGAGA CTGGGCGCCG GGGGAAAGCG GGGAGAGCCG
1381 GGCAGATGCG GCCGACGAG GCGCGGACAG ACCGACGGCT GCGGGGCCCG GGGGGCGGGC
1441 TGGGGGTGTG CGAGGCGCGG GCGGCCGGG AGCGCTGATT GGCTGGCGGG TGGCCGGGTG
1501 GCGGGGGCGG CCGGGGTGGG CTGCGGGGAG CGAGCTCCGG ACCCCGCGC CCCCAGCGCC
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1561 CCCCGCGCCC CCCGCGGCCA GCTCTCCCGC TCCCGGCGCC CGGCCGGGCC ATGGCTCTGC
1621 CCCTCTCCGC CCAGGTGCGC TGCGGCGCCG GCTTCTGCGC CCCACCCGGC GGGCTCCTGG
1681 GAGGGCGTCT AAGGGGTCTC CCGTGGGAGA GGTCCGTGTC TCCCGGACTC CGTCTGGGGC
1741 TTTTGGCTCC TTCCCTGCTC CCCAGCCAGC TCGGGCTCCC GCGGCCCGGG GAGGGGGCAG
1801 GTTCTGGCCT GTGCCTCCCC CACCATCCGC GCCCGGGGGC CCAGATTCGG CGCTCCGGGG
1861 GCGGACGGGA GACGCGCGGG CCGCGTCTGC TCCGACGGGC GGGGCAGCCA GAGCCAGGGA
1921 GGGAGAGGGA AGCCGCGCTG GCCCTGCGAC CTGCCGCGGG GCGTTCACCC CTGGGACTTA
1981 AGACCTCCAG CTCCATCCTC CCTAAGGCCG GGAGTCCAGG CCCCAGACCC TCCTCCCCGA
2041 GACCCAGGAG TCCAGACCCC AGGCCTTCCT CCCTCAGACC TAGGAGTCCA GGCCCCCAGC
2101 CTCTCCTCCC TCAGACCCAG GAGGAGTCCA GACCCAGATT CCTCCTCCCT CAGACCCGGG
2161 AGTCCAGCCC AGGCCCTCCT CTCTCAGACC CGGAGTCCAG CCTGAGCTCT CTGCCCTATC
2221 CTGCCCCAG GTGTGTCGGC CCTGTGCTGA GTCGTGCTGA GCCTGTGGCC AGATACAGCT
2281 GTCGCCCCTG GGCCACCACC TGGCCCCCCT CGAGTTTCCC CAGACCCTCG GGCCGAGCTG
2341 GACAGCACCG TGCTCCTGAC CCGCTCTCTC CTGGCGGACA CGCGGCAGCT GGCTGCACAG
2401 CTGTTAGGAG AGACTGGGCT GGGGCCAGCA CAGGAGTGAG AGGCAGAGAG GAACGGAGAG
2461 GAGTCTGCGG GCAGCCACTT GGAGGGGTTT TGGGCTCTCA GGTGGCAGAG TGAGGGAGGG
2521 GAAGAGTTGG GGGCCTGGCG TGGGGGATGG AGGGAGCCCC GAGGCTGGGC AGGGGCCACC
2581 TCACAGCTTT TTTCCCTGCC AGAGGGACAA ATTCCCAGCT GACGGGGACC ACAACCTGGA
2641 TTCCCTGCCC ACCCTGGCCA TGAGTGCAGG GGCCTGGGA GCTCTACAGG TAAGGGCAAG
2701 GGAGTGGGCT GGGGACAAGG TGGGAGGCAG GCAGTGAAGG GGGCGGGGAG GATGAGGGGC
2761 ACTGGTGGG TGTCTCTGA TGTCCCGGCT CTATCCCCAG CTCCAGGTG TGCTGACAAG
2821 GCTGCGAGCG GACCTACTGT CCTACCTGCG GCACGTGCAG TGGCTGCGCC GGGCAGGTGG
2881 CTCTTCCCTG AAGACCTTGG AGCCCGAGCT GGGCACCTG CAGGCCCGAC TGGACCGGCT
2941 GCTGCGCCGG CTGCAGCTCC TGGTATGTCC TGGCCCCAAG ACCTGACACC CCAGACCCCC
3001 ACCCCTGGCC CCAAATCCT GTGGCCTGAG TCCTGAAGC CTGAGACCCC AGACCCGAGT
3061 GCAACAGCCC CGCTCTGAGA CCCTGACACC CTAACAGCCC GCTCTGAGAC CCTGACACCG
3121 TAACAGCCCC GCTCTGAGAC CCTGACCCCTA ACAGTCTGCG TCTGAGACCC TGACCCTGCA
3181 GTCCCAAGAT CCTGTGGCCC TGAGACCCTG AGGCCCTAGA CCCCCAAATC CTGCCCAGAA
3241 ACTTCAAAT CTCAACCAAG ACCCTGAGAC TCCATCATCC ATGACCTCAA AGTCCCCAGA
3301 TCCCAGCCCC TAAGACCCAA GACCCCATCC TGAAGCCCAA AGCCTTGAGA ATTCAAATCC
3361 TCACCTCAAG ACTTGAGAG CCTGGCCCCA TGACATTGAA AACCATGGAC CTGGCCAGGC
3421 GTGGTGGCTC ACGCCTGTAA TCCCAGCACT TTGGGAGGCC GAGGCAAGTG GATCACCTGA
3481 GGTGCGGAGT TCAAGACCAG CCAGACCAAC ATGGTGAAAC CCTGTCTCTA CTAATAATAC
3541 AAAATTAGCC AGGCGTGGTG GTGCATGCCT GTAATCCCAG CTACTTGGGA GGCTGAGGCA
3601 GGAGAATCGC TTGAACCTGG GAGGCGGAGG TTGCAGTGAG CCGAGATCGC ACCATTACAC
3661 TCCAGCCTGG GCAACAAGAG CAAAACCTCC TCTCTCTCAA AAAAAAAAAA AAAAAAAAAA
3721 AAGAAGGAAA AGAAAAACCAT GGACCTCCAG ACCCTGAGAC CCCAGGCCCC AGCCCTGAGA
3781 TCCTGACATC TTAAAGATCC CAGGCCCTAA GATACAAGAC CTTGACCCAA AGCCAGCCTT
3841 GGGACCCTGG CTGTACAAAC CCAAGACCTC CAGGACCTAG ACCCCGAGCC CTGAGGCCCT
3901 ATGTCTCACT CCCAACATCG AAAACCCTGA CACCTCAGAT CCTGAGCCTG CGCCTGTACG
3961 ACTTCAAGAC CCTCACTTCC AAAGCCAGGC CCAAAGCCCT GAGACCAGAA GACTTCAAAC
4021 CCTGGTTCTT GGGCCTAACT CCAAAGACCC TGGATCTCAA ATTCCAACCT CTAGCTCTGA
4081 GACTCCAGCC CTCACCCATG AGTTCCTGAA CTTGAACCCA GAGACCCCAT CTCTAAGACT
4141 TCAGCCTTGA GATCCAGGGC CTGACCCTAG ACTCGAGCCC ACAGACCTCA GATACTGTCT
4201 GTAAACCCCC AGCTCTGGTG GGGAGCAGTG GCTCACTCCT GTAATCCCAA GGCAGGGGAG
4261 GCCAAGGCAG AAGGACCTCT TGAGGCCATG AGTTTGAGAC AGCCTGGGCA GCATAGCAAG
4321 ACTCTGTTTC TTAATTATTA TTATTATTAT TATTTTGGG AGACAGAGTC TCGCGCTCTG
4381 TTGCCCAGGC TAGAGTGCAA TGGTGCCATT TCGGCTTGCT GGAACCTCCG CCTCTGGGGC
4441 TCAAGCGATT CTCCTGCCTC AGCCTCCTGA GTAGCTGGGA CTTCAGGTGC AACTTGCCAC
4501 ACCCGGATAA TTTTGTGTA TTTTAGTAGA CACAGGTTT CACCGTGTG CCCAGGCTGG
4561 TCACAAACTC CTGAGCTCAG GCCATCCGCC CGCCTCGGCC TCCCAAAGCG CTGGGATAAC
4621 AGGCGTGACG CCGCGCCTGG CTTCTTAATT GTTCTAACAG CAGCGACAAC AACAAAAACC
4681 CAGTCTGAG ATTCCAGCCC CGGCGACTCT AACAGTCCCA GGCCCGATCC CTCACCTAGA
4741 ACCGAGATGC CAGCCCTGAC TCCACAGACT TCACCCCAA CCCCCACACT CAGCTCTGGA
4801 AGCCCGTCTT GACTCCAGCC TCATTTTCG GAACCCACA GCCTGAAGAG CTCGCGCCT
4861 AAACACTTCA CCCACGCGC CACAGTCCCC CTGTGAATAT GCAGCCCCGA TTCAGCTGCA
4921 GCTCCACAGC ACCCCTGCCC TGACCCCCCG CTGCACCCCC TACCTGTGAC TCACCTCTCT
4981 CCTCTCCCA CAGATGTCCC GCCTGGCCCT GCCCAGCCA CCCCAGGACC CGCCGCGGCC
5041 CCCGCTGGCG CCCCCCTCCT CAGCCTGGGG GGGCATCAGG GCGGCCACG CCATCCTGGG
5101 GGGGCTGCAC CTGACACTTG ACTGGGCCGT GAGGGGACTG CTGCTGTGA AGACTCGCT
5161 GTGACCCGGG GCCCAAAGCC ACCACCGTCC TTCCAAAGCC AGATCTTATT TATTATTATA
5221 TTTCAGTACT GGGGGCGAAA CAGCCAGGTG ATCCCCCGC CATTATCTCC CCCTAGTTAG

5281 AGACAGTCCT TCCGTGAGGC CTGGGGGGCA TCTGTGCCTT ATTTATACTT ATTTATTTC

5341 GGAGCAGGGG TGGGAGGCAG GTGGACTCCT GGGTCCCCGA GGAGGAGGGG ACTGGGGTCC

5401 CGGATTCTTG GGTCTCCAAG AAGTCTGTCC ACAGACTTCT GCCCTGGCTC TTCCCCATCT

5461 AGGCTGGGC AGGAACATAT ATTATTTATT TAAGCAATTA CTTTTCATGT TGGGGTGGGG

5521 ACGGAGGGGA AAGGGAAGCC TGGGTTTTTG TACAAAAATG TGAGAAACCT TTGTGAGACA

5581 GAGAACAGGG AATTAAATGT GTCATACATA TCCACTTGAG GGCGATTGT CTGAGAGCTG

5641 GGGCTGGATG CTTGGGTAAC TGGGGCAGGG CAGGTGGAGG GGAGACCTCC ATTCAGGTGG

5701 AGGTCCCGAG TGGGCGGGGC AGCGACTGGG AGATGGGTCG GTCACCCAGA CAGCTCTGTG

5761 GAGGAGGGT CTGAGCCTTG CCTGGGGCCC CGCACTGCAT AGGGCCGTTT GTTTGTTTTT

5821 TGAGATGGAG TCTCGCTCTG TTGCCTAGGC TGGAGTGCAG TGAGGCAATC TAAGGTCACT

5881 GCAACCTCCA CCTCCCGGT TCAAGCAAT CTCTGCCTC AGCCTCCCGA TTAGCTGGGA

5941 TCACAGGTGT GCACCACCAT GCCCAGCTAA TTATTTATTT CTTTTGTATT TTTAGTAGAG

6001 ACAGGGTTTC ACCATGTTGG CCAGGCTGGT TTCGAACCTC TGACCTCAGG TGATCCTCCT

6061 GCCTCGGCCT CCCAAAGTGC TGGGATTACA GGTGTGAGCC ACCACACCTG ACCCATAGGT

6121 CTTCATAATA TATTTAATGG AAGGTTCCAC AAGTCAACCT GTGATCAACA GTACCCGTAT

6181 GGGACAAAGC TGCAAGGTCA AGATGGTTCA TTATGGCTGT GTTCACCATA GCAAACTGGA

6241 AACAACTTAG ATATCCAACA GTGAGGGTTA AGCAACATGG TGCATCTGTG GATAGAACGC

6301 CACCCAGCCG CCCGGAGCAG GGAAGTGCAT TCAGGGAGGC TAAGGAGAGA GGCTTGCTTG

6361 GGATATAGAA AGATATCCTG ACATGGGCA GGCATGGTGG CTCACGCTG TAATCCTGGC

6421 ACTTTGGGAG GACGAAGCGA GTGGATCACT GAAGTCCAAG AGTTTGAGAC CGGCCTGCGA

6481 GACATGGCAA AACCTGTCT CAAAAAGAA AGAATGATGT CCTGACATGA AACAGCAGGC

6541 TACAAAACCA CTGCATGCTG TGATCCCAAT TTTGTGTTTT TCTTCTATA TATGGATTAA

6601 AACAAAAATC CTAAAGGGAA ATACGCCAAA ATGTTGACAA TGACTGTCTC CAGGTCAAAG

6661 GAGAGAGGTG GGATTGTGGG TGACTTTTAA TGTGTATGAT TGTCTGTATT TTACAGAATT

6721 TCTGCCATGA CTGTGTATTT TGATGACAC ATTTTAAAAA TAATAAACAC TATTTTATA

6781 ATAACAGAA ATCAGCCTCC TCCTCTCCAA AAATAAGCCC TCAGGAGGGG ACAAGTTGA

6841 CCGCTGATTG AGCCTGTCAG GGCTGTGCAC

(2) INFORMATION FOR SEQ ID NO:2523:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8055 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2523:

1 GCTCAGGGCA CATGCCTCCC CTCCCAGGC CGCGGCCAG CTGACCCTCG GGGCTCCCC

61 GGCAGCGGAC AGGGAAGGGT TAAAGGCCCC CGGCTCCCTG CCCCTGCCC TGGGGAACCC

121 CTGGCCCTGT GGGGACATGA ACTGTGTTTG CCGCTGGTC CTGGTCGTG TGAGCCTGTG

181 GCCAGATACA GCTGTGCCCC CTGGGCCACC ACCTGGCCCC CCTCGAGTTT CCCAGACCC

241 TCGGGCCGAG CTGGACAGCA CCGTGCTCCT GACCCGCTCT CTCTGGCGG ACACGCGGCA

301 GCTGGCTGCA CAGCTGAGGG ACAAATCCC AGCTGACGGG GACCACAACC TGGATTCCCT

361 GCCACCCCTG GCCATGAGTG CCGGGGCACT GGGAGCTCTA CAGTCCCAG GTGTGCTGAC

421 AAGGCTGCGA GCGGACCTAC TGTCTACCT GCGGCACGT CAGTGGCTGC GCCGGGCAGG

481 TGGCTCTTCC CTGAAGACCC TGGAGCCCGA GCTGGGCACC CTGCAGGCC GACTGGACCG

541 GCTGCTGCGC CGGCTGCAGC TCCTGATGTC CCGCTGGCC CTGCCCCAGC CACCCCGGGA

601 CCCGCCGCG CCCCGCTGG CGCCCCCTC CTCAGCCTGG GGGGCGATCA GGGCCGCCCA

661 CGCCATCCTG GGGGGGCTGC ACCTGACACT TGAAGGGGAC GTGAGGGGAC TGCTGCTGCT

721 GAAGACTCGG CTGTGACCCG GGGCCCAAAG CCACCACCGT CCTTCCAAAG CCAGATCTTA

781 TTTATTTATT TATTTAGTA CTGGGGGCGA AACAGCCAGG TGATCCCCC GCCATTATCT

841 CCCCTAGTT AGAGACAGTC CTTCGTGAG GCCTGGGGGA CATCTGTGCC TTATTTATAC

901 TTATTTATTT CAGGAGCAGG GGTGGGAGGC AGGTGGACTC CTGGGTCCCC GAGGAGGAGG

961 GGAAGTGGGT CCCGATTCT TGGGTCTCCA AGAAGTCTGT CCACAGACTT CTGCCCTGGC

1021 TCTTCCCAT CTAGGCTGG GCAGGAACAT ATATTATTTA TTTAAGCAAT TACTTTTCAT

1081 GTTGGGGTGG GGACGGAGGG GAAAGGGAAG CCTGGGTTTT TGTACAAAAA TGTGAGAAAC

1141 CTTTGTGAGA CAGAGAACAG GGAATTAAAT GTGTCATACA TATCC

1201 CAGCTGCGGC ATCCTCTGTC TCAGAGTCTT GGTGTCTCTG TTCCTTTCCC CTCGGGGTCT

1261 CCCTGGGTCT CCCCAAGTCC CTCTGCTGT CTCTCTCCG CTCTCTGATC TCTGACTCCC

1321 AGAACCTCTC CCTCTGTCTC CAGGGCTGCC CCTCTGATCC TCTTGCTTC TCTGGTGTGT

1381 CTCTCTGTGT GCCTCCATCT CTGTGGATCT CCGTCTCCCT GTCTCTGTCT CAGTCTGTCC

1441 TTCACTCTGT GTGTGTGTGT GTCTCTCTCT CTCTCTCTCC TTCCCTTCCA CTCCCTCTTC

1501 CTCTGCTCTC CACCTCTCCA GGGCCCTGTC TTGTCCCTCC GTCCGGCCTT TCTCTGCCTT

1561 TCCGTCTCTC TGCTCTCCCA TCTCTCTCTG CTAGTCTCTG CCAGCCGGAC CCCCACCCAC

421 AGTCGGGCCCC CAGCGCTTGA GCCTGAGTGT CTGCTCCGGC CCGTGGAGGT GGAGGGAGGG
481 GACGCCAATG ACCTCACCAG CCCCTCTCCG ACCACCCCCC CCTTTCCCTT TTCAACTTTT
541 CCAACTTTTC CTTCCGTGCC CTCTCCGAG CGCGGCGGCG TGAGCCCTGC AAGGCAGCCG
601 CTCCGTCTGA ATGGAAGG CAGGCAGGGA GGGTGAGTCA GGATGTGTCA GGCCGGCCCT
661 CCCCTGCCGC CTGCCCCCGC CCCGCCCGCC CCAGGCCCCC TATATAACCC CCCAGGCGTC
721 CACACTCCCT CACTGCCGCG GGCCCTGCTG CTCAGGGCAC ATGCCTCCCC TCCCCAGCCG
781 CGGGCCGAGC TGACCTCGG GGCTCCCCCG GCAGCGGACA GGGGAAGGTT AAAGGCCCCC
841 GGCTCCCTGC CCCCTGCCCT GGGGAACCCC TGGCCCTGTG GGGACATGAA CTGTAAGTTG
901 GTTCATGGGG AGGGTGGAGG GGACAGGGAG GCAGGGAGGA GAGGGACCCA CGGCGGGGGT
961 GGGAGCAGAC CCCGCTGAGT CGCAGAGAGA GGGACCCGGA GACAGGCAGC CGGGGAGGAG
1021 AGCAGCTTCG GAGACAGGAG GCGGCGGAGG AGATGGGCAG AGAGAGACAC AGACAGGAGC
1081 GGATGGAGGC AGCCAATCAG AGGCGCCGCA GGAGGGACGG GCCAGACAGG GCCCGAGGAG
1141 AGCGAGACGC GAGACCGAGC AGGGGCAGGG ACGCAGGGAC TGGTGCCGGG AGGGAGGTGA
1201 CCCCATCGA CCCAGGCCCC AGGGAGCCCG CGGGGACCGG GAGACTCCCT GGGATTCCCG
1261 CAGAGAGGCT CCGGAGGGAA ACTGAGGCAG GGTCCGCGGA GAGCGGAGCA AGCCAGGGAG
1321 TAGCGACCCC AGCCGGGGGG AGGAGAGAGA CTGGGCGCCG GGGGAAAGCG GGGAGAGCCG
1381 GGCAGATGCG GCCGACGGAG GCGCGGACAG ACCGACGGCT GGCGGGCCCG GGGGCGGGC
1441 TGGGGGTGTG CGAGGCGCGG GCGGCGGGG AGCGCTGATT GGCTGGCGGG TGGCCGGGTG
1501 GGCGGGGCGG CCGGGGTGGG CTGCGGGGAG CGAGCTCCGG ACCCCGCGC CCCCGGCGCC
1561 CCCCGCGCCC CCCGCCGCCA GCTCTCCCGC TCCCGCGGCC CGGCGGGGCC ATGGCTCTGC
1621 CCCTCTCCCG CAGGTGCGC TCGGCGCCCG GCTTCTGCCG CCCACCCGGC GGGCTCCTGG
1681 GAGGGCGTCT AAGGGGTCTC CCGTGCGAGA GGTCCGTGTC TCCCGGACTC CGTCTGGGC
1741 TTTTGGCTCC TTCCCTGCTC CCCAGCCAGC TCGGGCTCCC GCGGCCCGGG GAGGGGGCAG
1801 GTTCTGGCCT GTGCTCCCC CACCATCCGC GCCCGGGGCG CCAGATTCCG GCGTCCGGGG
1861 GCGGACGGGA GACGCCCGGG CCGCGTCTGC TCCGACGGGC GGGGCAGCCA GAGCCAGGGA
1921 GGGAGAGGGA AGCCCGCCTG GCCCTGCGAC CTGCGCGCGG GCGTTCACC CTGGGACTTA
1981 AGACCTCCAG CTCCATCCTC CCTAAGGCCG GGAGTCCAGG CCCCAGACCC TCCTCCCCGA
2041 GACCAGGAG TCCAGACCCC AGGCCTTCCT CCCTCAGACC TAGGAGTCCA GGGCCCCAGC
2101 CTCTCTCCC TCAGACCCAG GAGGAGTCCA GACCCAGTT CCTCTCCCT CAGACCCGGG
2161 AGTCCAGCCC AGGCCCTCCT CTCTCAGACC CGGAGTCCAG CTTGAGCTCT CTGCCTTATC
2221 CTGCCCCCAG GTGTTTGCCG CCTGGTCTGT GTCTGTCTGA GCCTGTGGCC AGATACAGCT
2281 GTCGCCCTG GGCCACCACC TGGCCCCCTC CGAGTTTCCC CAGACCCTCG GGCCGAGCTG
2341 GACAGCACCG TGCTCCTGAC CCGTCTCTC CTGGCGGACA CGCGGCAGCT GGCTGCACAG
2401 CTGGTAGGAG AGACTGGGCT GGGGCCAGCA CAGGAGTGAG AGGCAGAGAG GAACGGAGAG
2461 GAGTCTGCGG GCAGCCACTT GGAGGGGTTT TGGGCTCTCA GGTGGCAGAG TGAGGGAGGG
2521 GAAGAGTTGG GGGCCTGGCG TGGGGATGG AGGGAGCCCC GAGGCTGGGC AGGGGCCACC
2581 TCACAGCTTT TTTCCCTGCC AGAGGGACAA ATTCCAGCT GACGGGGACC ACAACCTGGA
2641 TTCCCTGCCC ACCCTGGCCA TGAGTGCAGG GGCAGTGGGA GCTCTACAGG TAAGGGCAAG
2701 GGAGTGGGCT GGGGACAAGG TGGGAGGCAG GCAGTGAAGG GGGCGGGGAG GATGAGGGGC
2761 ACTGGTCCGG TGTCTCTGA TGTCCCGGCT CTATCCCCAG CTCCCAGGTG TGCTGACAAG
2821 GTCGCGAGCG GACCTACTGT CCTACCTGCG GCAGCTGCAG TGGCTGCGCC GGGCAGGTGG
2881 CTCTTCCCTG AAGACCCTGG AGCCCGAGCT GGGCACCCCTG CAGGCCCGAC TGGACCGGCT
2941 GCTGCGCCCG CTGCAGCTCC TGGTATGTCC TGGCCCAAG ACCTGACACC CCAGACCCCC
3001 ACCCCTGGCC CAAAATCCT GTGGCCTGAG TCCTTGAAGC CTGAGACCCC AGACCCGAGT
3061 GCAACAGCCC CGCTCTGAGA CCCTGACACC CTAACAGCCC GCTCTGAGAC CCTGACACCG
3121 TAACAGCCCC GCTCTGAGAC CCTGACCCTA ACAGTCTGTC TCTGAGACCC TGACCCTGCA
3181 GTCCCAAGAT CCTGTGGCCC TGAGACCCTG AGGCCCTAGA CCCCCAATC CTGCCAGAA
3241 ACTTCAAAT CTACCCCAAG ACCCTGAGAC TCCATCATCC ATGACCTCAA AGTCCCCAGA
3301 TCCCAGCCCC TAAGACCCAA GACCCATCC TGAAGCCAA AGCCTTGAGA ATTCAAATCC
3361 TCACCTCAAG ACTTGGAGAC CCTGGCCCCA TGACATTGAA AACCATGGAC CTGGCCAGGC
3421 GTGGTGGCTC ACGCTGTAA TCCCAGCACT TTGGGAGGCC GAGGCAAGTG GATCACCTGA
3481 GGTCGGGAGT TCAAGACCAG CCAGACCAAC ATGGTGAAAC CCTGTCTCTA CTAAAAATAC
3541 AAAATTAGCC AGGCGTGGTG GTGCATGCCT GTAATCCAG CTACTTGGGA GGCTGAGGCA
3601 GGAGAATCGC TTGAACCTGG GAGGCGGAGG TTGCAGTGAG CCGAGATCGC ACCATTACAC
3661 TCCAGCCTGG GCAACAAGAG CAAAACCTCC TCTCTCAA AAAAAAAAAA AAAAAAAAAA
3721 AAGAAGGAAA AGAAAACCAT GGACCTCCAG ACCCTGAGAC CCCAGGCCCC AGCCCTGAGA
3781 TCCTGACATC TTAAAGATCC CAGGCCCTAA GATACAAGAC CTTGACCCAA AGCCAGCCTT
3841 GGGACCCTGG CTGTACAAAC CCAAGACCTC CAGGACCTAG ACCCCGAGCC CTGAGGCCCT
3901 ATGTCTCACT CCCAACATCG AAAACCCTGA CACCTCAGAT CCTGAGCCTG CGCCTGTACG
3961 ACTCCAAGAC CCTCACTTCC AAAGCCAGGC CCAAAGCCCT GAGACCAGAA GACTTCAAAC
4021 CCTGGTTCTT GGGCCTAACT CCAAAGACCC TGGATCTCAA ATTCCAACCT CTAGCTCTGA
4081 GACTCCAGCC CTCACCCATG AGTTCCTGAA CTTGAACCCA GAGACCCCAT CTCTAAGACT

4141 TCAGCCTTGA GATCCAGGGC CTGACCCTAG ACTCGAGCCC ACAGACCTCA GATACTGTCT
4201 GTAAACCCCC AGCTCTGGTG GGGAGCAGTG GCTCACTCCT GTAATCCCCA GGCAGGGGAG
4261 GCCAAGGCAG AAGGACCTCT TGAGGCCATG AGTTTGAGAC AGCCTGGGCA GCATAGCAAG
4321 ACTCTGTTTC TTAATTATTA TTATTATTAT TATTTTGGG AGACAGAGTC TCGCGCTCTG
4381 TTGCCCAGGC TAGAGTGCAA TGGTGCCATT TCGGCTTGCT GGAACCTCCG CCTCCTGGGC
4441 TCAAGCGATT CTCCTGCCTC AGCCTCCTGA GTAGCTGGGA CTTCAGGTGC AACTGTCCAC
4501 ACCCGGATAA TTTTGTGTA TTTTAGTAGA CACAGGGTTT CACCGTGTG CCCAGGCTGG
4561 TCACAACTC CTGAGCTCAG GCCATCCGCC CGCCTCGGCC TCCCAAAGCG CTGGGATAAC
4621 AGGCGTGACG CCGCGCCTGG CTTCTTAATT GTTCTAACAG CAGCGACAAC AACAAAAACC
4681 CAGCTCTGAG ATTCCAGCCC CGGCGACTCT AACAGTCCCA GGCCCGATCC CTCACCTAGA
4741 ACCGAGATGC CAGCCCTGAC TCCACAGACT TCACCCCAA CCCCACACT CAGCTCTGGA
4801 AGCCCGTCCCT GACTCCAGCG TCCATTTTCG GAACCCACA GCCTGAAGAG CTCCCGGCCT
4861 AACACTTCA CCCCACGCGC CACAGTCCCC CTGTGAATAT GCAGCCCCGA TTCAGCTGCA
4921 GCTCCACAGC ACCCCTGCCC TGCACCCCG CTGCACCCCT TACCTGTGAC TCACCTCTCT
4981 CCTCTCCCCA CAGATGTCCC GCCTGGCCCT GCCCCAGCCA CCCCAGGACC CGCCGCGGCC
5041 CCCGCTGGCG CCCCCTCCT CAGCCTGGGG GGGCATCAGG GCGGCCACG CCATCTCTGG
5101 GGGGCTGCAC CTGACACTTG ACTGGGCCGT GAGGGGACTG CTGCTGCTGA AGACTCGGCT
5161 GTGACCCGGG GCCCAAAGCC ACCACCGTCC TTCCAAAGCC AGATCTTATT TATTTATTTA
5221 TTTCACTACT GGGGGCGAAA CAGCCAGGTG ATCCCCCGC CATTATCTCC CCCTAGTTAG
5281 AGACAGTCTT TCCGTGAGGC CTGGGGGGCA TCTGTGCCTT ATTTATACTT ATTTATTTCA
5341 GGAGCAGGGG TGGGAGGCAG GTGACTCCTT GGGTCCCCGA GGAGGAGGGG ACTGGGGTCC
5401 CGGATTCTTG GGTCTCCAAG AAGTCTGTCC ACAGACTTCT GCCCTGGCTC TTCCCATCT
5461 AGGCTTGGG AGGAACATAT ATTATTTATT TAAGCAATTA CTTTTCATGT TGGGGTGGGG
5521 ACGGAGGGGA AAGGGAAGCC TGGGTTTTTG TACAAAAATG TGAGAAACCT TTGTGAGACA
5581 GAGAACAGGG AATTAAATGT GTCATACATA TCCACTTGAG GCGGATTGT CTGAGAGCTG
5641 GGGCTGGATG CTTGGGTAAC TGGGCGAGG CAGGTGGAGG GGAGACCTCC ATTCAGGTGG
5701 AGGTCCCGAG TGGGCGGGG AGCGACTGGG AGATGGGTGG GTCACCCAGA CAGCTCTGTG
5761 GAGGAGGGT CTGAGCCTTG CCTGGGGCCC CGCACTGCAT AGGGCCGTTT GTTTGTTTTT
5821 TGAGATGGAG TCTCGCTCTG TTGCCTAGGC TGGAGTGCAG TGAGGCAATC TAAGGTCACT
5881 GCAACCTCCA CCTCCCGGT TCAAGCAATT CTCCTGCCTC AGCCTCCCGA TTAGCTGGGA
5941 TCACAGGTGT GCACCACCAT GCCCAGCTAA TTATTTATTT CTTTGTATT TTTAGTAGAG
6001 ACAGGGTTTC ACCATGTTGG CCAGGCTGGT TTCGAACTCC TGACCTCAGG TGATCCTCCT
6061 GCCTCGGCCT CCCAAAGTGC TGGGATTACA GGTGTGAGCC ACCACACCTG ACCCATAGGT
6121 CTCAATAAAA TATTTAATGG AAGGTTCCAC AAGTCACCCT GTGATCAACA GTACCCGTAT
6181 GGGACAAAGC TGCAAGGTCA AGATGGTTCA TTATGGCTGT GTTACACATA GCAAACGGGA
6241 AACCAATCTAG ATATCCAACA GTGAGGGTTA AGCAACATGG TGCATCTGTG GATAGAACGC
6301 CACCCAGCCG CCCGGAGCAG GGAATGTCAT TCAGGGAGGC TAAGGAGAGA GGCTTGCTTG
6361 GGATATAGAA AGATATCCTG ACATTGGCCA GGCATGGTGG CTCACGCCCTG TAATCCTGGC
6421 ACTTTGGGAG GACGAAGCGA GTGGATCACT GAAGTCCAAG AGTTTGAGAC CGGCCTGCCA
6481 GACATGGCAA AACCTGTCT CAAAAAGAA AGAATGATGT CCTGACATGA AACAGCAGGC
6541 TACAAAACCA CTCATGCTG TGATCCCAAT TTTGTGTTTT TCTTCTATA TATGGATTAA
6601 AACAAAAATC CTAAAGGGAA ATACGCCAAA ATGTTGACAA TGACTGTCTC CAGGTCAAAG
6661 GAGAGAGGTG GGATTGTGGG TGACTTTTAA TGTGTATGAT TGTCTGTATT TTACAGAATT
6721 TCTGCCATGA CTGTGTATTT TGATGACAC ATTTTAAAAA TAATAAACAC TATTTTGTGA
6781 ATAACAGAAT ATCAGCCTCC TCCTCTCCAA AAATAAGCCC TCAGGAGGGG ACAAAGTTGA
6841 CCGCTGATTG AGCCTGTGAG GGCTGTGAC

(2) INFORMATION FOR SEQ ID NO:2524:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1696 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2524:

1 gctgtagctg gtgagaggaa gtcctagagg ctatggacac tctgctgctg ggatcaccga
61 gatgagcagc agctgctcag ggctgagcag ggtcctggtg gccgtggcta cagccctggt
121 gtctgctccc tccccctgcc cccaggcctg gggcccccga ggggtccagt atgggcagcc
181 agggaggtcc gtgaagctgt gttgctctgg agtgactgcc ggggacccag tgcctggtt
241 tcgggtaggg gagccaaagc tgcctcaggg acctgactct gggctagggc atgaactggt
301 cctggcccag gcagacagca ctgatgaggg cacctacatc tgccagaccc tggatggtgc
361 acttgggggc acagtgaccc tgcagctggg ctaccctcca gccgcctctg ttgtctctg
421 ccaagcagcc gactatgaga acttctcttg cacttggagt cccagccaga tcagcggttt

481 acccaccgcg tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
 541 gaggagtgcca tccacagggc cctggccatg cccacaggat cccctagggg ctgcccgctg
 601 tgttggtccac ggggctgagt tctggagcca gtaccggatt aatgtgactg aggtgaaccc
 661 actgggtgcc agcacacgcc tgctggatgt gagcttgagc agcatcttgc gccctgaccc
 721 accccagggc ctgctggtag agtcagtacc aggttaccgc cgacgcctgc gagccagctg
 781 gacataccct gctcctggc cgtgccagcc ccacttctg ctcaagttcc gtttgcahta
 841 ccgtccggcg cagcatccag cctggccac ggtggagcca gctggactgg aggagtgat
 901 cacagatgct gtggctgggc tgcccatgc tgtacgagtc agtgccggg actttctaga
 961 tgctggcacc tggagcacct ggagcccgga ggctgggga actccgagca ctgggacat
 1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagagggtg agcctcaggt
 1081 ggacagccct gctcctccaa ggccctccct ccaaccacac cctcggctac ttgatcacag
 1141 ggactctgtg gacaggttag ctgtgctggc gtctttggga atcctttctt tcctgggact
 1201 ggtggtggg gccctggcac tgggctctg gctgaggctg agacggggtg ggaaggatgg
 1261 atcccaaag cctgggttct tggcctcagt gattccagt gacaggcgct caggagctcc
 1321 aaacctgtag aggaccagc agggcttcg cagattccac ctataattct gtctgtctgg
 1381 tgtggataga aaccaggcag gacagtagat ccctatggtt ggatctcagc tggaaagtct
 1441 gtttgagacc catttctgtg agaccctgta ttcaaattt gcagctgaaa ggtgctgtga
 1501 cctctgattt caccacagag ttggagttct gctcaaggaa cgtgtgtaat gtgtacatct
 1561 gtgtccatgt gtgaccatgt gtctgtgaag gccagggaac atgtattcct ctgcatgcat
 1621 gtatgtagg gctgggaggt gtgtgtggtc cttgctctg ccctttccct tgcagggttg
 1681 tgcaggtgtg aataaa

(2) INFORMATION FOR SEQ ID NO:2525:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1682 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2525:

1 ggaagatgag cagcagctgc tcagggctga gcagggtcct ggtggccgtg gctacagccc
 61 tgggtgtctgc ctctccccc tgccccagg cctggggccc cccaggggtc cagtatgggc
 121 agccaggcag gtccgtgaag ctgtgttgct ctggagtgac tgccggggac ccagtgtcct
 181 ggtttcggga tggggagcca aagctgctcc agggacctga ctctgggcta gggcatgaac
 241 tggctcctgac ccaggcagac agcactgatg agggcaccta catctgccag accctggatg
 301 gtgcaacttg gggcacagt accctgcagc tgggctaccc tccagccgc cctgttgtct
 361 cctgccaagc agccgactat gagaacttct cttgcaactg ggtcccagc cagatcagcg
 421 gtttaccac ccgtacctc acctcctaca ggaagaagac agtccctagga gctgatagcc
 481 agaggaggag tccatccaca gggccctggc catgccaca ggatcccta ggggctgccc
 541 gctgtgttgt ccacggggtc gacttctgga gccagtaccy gattaatgtg actgaggtga
 601 acccaactgg tgccagcaca cgctgctgg atgtgagctt gcagagcatt ttgcgccctg
 661 acccaccaca gggcctgcgg gtagagtcag taccagggtt ccccgacgc ctgagagcca
 721 gctggacata cctgcctcc tggccgtgcc agcccaactt cctgctcaag ttccgtttgc
 781 agtaccgtcc ggcgcagcat ccagcctggt ccacgggtga gccagctgga ctggaggagg
 841 tgatcacaga tgcgtgtggt gggctgcccc atgctgtacg agtcagtgcc cgggactttc
 901 tagatgctgg cacctggagc acctggagcc cggaggcctg gggaaactcc agcactggga
 961 ccataccaaa ggagatacca gcatggggcc agctacacac gcagccagag gtggagcctc
 1021 aggtggacag cctgtcctc ccaaggccct cctccaacc acaccctcgg ctacttgatc
 1081 acagggactc tgtggagcag gtagctgtgc tggcgtctt ggaatcctt tcttctctgg
 1141 gactgggtggc tggggccctg gcaactgggc tctggctgag gctgagacgg ggtgggaagg
 1201 atggatcccc aaagcctggg ttcttggcct cagtgtattc agtggacagg cgtccaggag
 1261 ctccaaacct gttagaggac caggagggtc tccgcagatt ccacctataa ttctgtcttg
 1321 ctggtgtgga tagaaaccag gcaggacagt agatccctat ggttgatct cagctggaag
 1381 ttctgttttg agccatttc tgtgagacc tgtatttcaa atttgagct gaaaggtgct
 1441 tctacctctg atttaccacc agagttggag ttctgtctaa ggaacgtgtg taatgtgtac
 1501 atctgtgtcc atgtgtgacc atgtgtctgt gaggcagga acatgtattc tctgcatgca
 1561 tgtatgtagg tgccctggga gtgtgtgtg gtccttggct cttggcctt cctgaggg
 1621 gttgtgcagg tgtgaataaa gagaataagg aagttcttgg agattatact cagaaaaaaa
 1681 aa

(2) INFORMATION FOR SEQ ID NO:2526:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 413 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2526:

```
1 tctgtggagc aggtagctgt gctggcgtct ttgggaatcc tttctttcct gggactggtg
61 gctggggccc tggcactggg gctctggtaa gtgactgcca ttgggtccctc agcctctgat
121 cctcacacat gctctgatgc ccatagacca cattcatctc cacccttcat gactgcctgc
181 tgaacctgtc tgattctgga actacctccc catacctcca tccctatgc cccacttgat
241 ttttaactgat tcctctcctg accctttact aataaacctt ttggcggaga ctgagataac
301 ccacattggt ggagagacag ctgcctttct atgccccagg ctgaggctga gacggggtg
361 gaaggatgga tccccaagc ctgggttctt ggcctcagtg attccagtgg aca
```

(2) INFORMATION FOR SEQ ID NO:2527:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3791 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2527:

```
1 gctgtagctg gtgagaggaa gtcctagagg ctatggacac tctgtctgtg ggatcaccga
61 gatgagcagc agctgctcag ggctgagcag ggtcctggtg gccgtggcta cagccctggt
121 gtctgcctcc tccccctgcc cccaggcctg gggcccccca ggggtccagt atgggcagcc
181 agggagggtc gtgaagctgt gttgtcctgg agtgactgcc ggggaccag tgcctggtt
241 tcgggatggg gagccaaagc tgctccaggg acctgactct gggctagggc atgaactggt
301 cctggcccag gcagacagca ctgatgaggg caectacatc tgccagaccc tggatggtgc
361 acttgggggc acagtgaccc tgcagctggg ctacctcca gccgcctctg ttgtctcctg
421 ccaagcagcc gactatgaga acttctcttg caettggagt cccagccaga tcagcggttt
481 acccaccgcg tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
541 gaggagtcca tccacagggc cctggccatg cccacaggat cccctagggg ctgcccgtg
601 tgttgtccac ggggctgagt tctggagcca gtaccgatt aatgtgactg aggtgaaccc
661 actgggtgcc agcacacgcc tgctggatgt gagcttgcat agcatcttgc gccctgaccc
721 accccagggc ctgcgggtag agtcagtacc aggttaccct cgacgcctgc gagccagctg
781 gacataacct gcctcctggc cgtgccagcc ccacttctct ctcaagttcc gtttgagta
841 ccgtccggcg cagcatccag cctggtccac ggtggagcca gctggactgg aggaggtgat
901 cacagatgct gtggctgggc tgccccatgc tgtacagtc agtgcccggg actttctaga
961 tgctggcacc tggagcacct ggagcccgga ggcctgggga actccagca ctgggacat
1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagaggtgg agcctcaggt
1081 ggacagccct gctcctccaa ggcctccct ccaaccacac cctcggtac ttgatcacag
1141 ggactctgtg gagcaggtag ctgtgctggc gtcttttggg atcctttctt tcctgggact
1201 ggtggtggg gccctggcac tggggctctg gctgaggctg agacggggtg ggaaggatgg
1261 atcccaaaag cctgggttct tggcctcagt gattccagtg gacaggcgtc caggagctcc
1321 aaacctgtag aggacccagg agggcttggg cagattccac ctataattct gtcttgctgg
1381 ttgtgataga aaccaggcag gacagtatag cctatgggtt ggatctcagc tggaaattct
1441 gtttgagacc catttctgtg agaccctgta tttcaaattt gcagctgaaa ggtgcttgta
1501 cctctgattt caccocagag ttggagttct gctcaaggaa cgtgtgtaat gtgtacatct
1561 gtgtccatgt gtgaccatgt gtctgtgaag gccagggaac atgtattcct ctgcatgcac
1621 gtatgtaggc gctgggagt gtgtgtggtc cttgctctgg ccctttccct tgcagggttg
1681 tgcagggtgt aataaaa
1 ggaagatgag cagcagctgc tcagggtgta gcagggtcct ggtggccgtg gctacagccc
61 tggtgtctgc ctctccccc tgccccagg cctggggccc cccagggtgc cagtatgggc
121 agccaggcag gtcctgtaag ctgtgttgct ctggagtgc tgccggggac ccagtgtcct
181 ggtttcggga tggggagcca aagctgctcc agggacctga ctctgggcta gggcatgaac
241 ttgtcctggc ccaggcagac agcactgatg agggcaccta catctgccag accctggatg
301 gtgcacttgg gggcacagt accctgcagc tgggctaccc tccagccgc cctgttgtct
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421 gtttaccac ccgtacctc acctctaca ggaagaagac agtcctagga gctgatagcc
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601 acccactggg tgccagcaca cgctgctgg atgtgagct gcagagcatc ttgcgcctg
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841 tgatcacaga tgctgtggct gggctgcccc atgctgtacg agtcagtgcc cgggactttc
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 1681 aa
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 121 cctcacacat gctctgatgc ccatagacca cattcatctc cacccttcat gactgctgtc
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 241 ttttaactgat tcctctcctg accctttact aataaacctt ttggcggaga ctgagataac
 301 ccacattgtt ggagagacag ctgcctttct atgccccagg ctgaggctga gacggggtgg
 361 gaaggatgga tccccaagc ctgggttctt ggcctcagtg attccagtg aca

(2) INFORMATION FOR SEQ ID NO:2528

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 940 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2528:

1 cttcaactca ataagcattt taagtattct aatcttagta tttctctagc tgacatgtaa
 61 gaagcaatct atcttattgt atgcaattag ctcatgtgtt ggataaaaag gtaaaaccat
 121 tctgaacacag gaaaccaata cacttcctgt ttaatcaaca aatctaaaca tttattcttt
 181 tcatctgttt actcttgcctc ttgtccacca caatatgcta ttcacatgtt cagtgtagtt
 241 ttatgacaaa gaaaattttc tgagttactt ttgtatcccc acccccttaa agaaaggagg
 301 aaaaactggt tcatacagaa ggcgttaatt gcatgaatta gagctatcac ctaagtgtgg
 361 gctaagttaa caaagaggga ttacacctac atccattcag tcagtccttg ggggtttaaa
 421 gaaattccaa agagtcacat gaagaggaaa aatgaaggta atgttttttc agacaggtaa
 481 agtctttgaa aatatgtgta atatgtaaaa cattttgaca ccccataaat atttttccag
 541 aattaacagt ataaattgca tctcttgttc aagagttccc tatcactctc tttaatcact
 601 actcacagta acctcaactc ctgccacaat gtacaggatg caactcctgt ctgcatgtgc
 661 actaagtctt gcacttgtca caaacagtgc acctacttca agttctacaa agaaaacaca
 721 gctacaactg gagcatttac ttctggattt acagatgatt ttgaatggaa ttaatgtaag
 781 tatatttctt ttcttactaa aattattaca tttagtaatc tagctggaga tcatttctta
 841 taacaatgca ttatactttc ttagaattac aagaatccca aactcaccag gatgctcaca
 901 ttttaagttt acatgcccaa gaagtaagt acaatatatt

(2) INFORMATION FOR SEQ ID NO:2529:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9339 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2529:

1 gaattccctt ttcctagtca aagaaagggg tgacagacag cacctggaaa atcgtgtcac
 61 tcccacccta atactgcgtc ttccaatgg tcttagcaaa cagcacacca agagattata
 121 tccagcacct ggctcagagg gtccatagcc cacggagcct cactcactgc tagcacagca
 181 gtctgagatc aaactgcaag gtggcagtga ggctgggaga ggggtgtgca ccattgccga
 241 ggcttgagta ggtaaacaaa gcagctggga agctcgaaact ggggtggagcc cactgcagct
 301 caaggaggcc tgectgcctc tgtagactcc acctccgggg gcagggcata gccaaacaaa
 361 aggcagcaga aacctctgca gacttaaatg tccctgtctg acagcttggga agagagtagt
 421 ggttctccca gcatgcagct tgagatctga gaatggacag actgcctcct caagtgggtc
 481 cctgaccccc gagtaacctc actgggaggc accccaagta ggggcagact gacacctcac

541 atggctgggt actcctctga gaaaaaactt ccagaggaac gatcaggcag caacatttgc
601 tgtttaccaa tatccactgt tctgcagcct cctgtgctaa taccaggca aatgggtctg
661 gagaggacct ccagcaagct ccaacagacc tacagctgag ggtcctgact gttagaagga
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1141 gatcaactgg aagaaagggt atcagtgatg gaagatcaaa tgaatgaaat gaagcaagaa
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1321 accaagctgg aaaacactct gcaggatatt atccaagaga acttccccaa tctagcaagg
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1801 aaaacatgcc aaattgtaaa caccattgag gccaggaaga aactgcatca actaacgagc
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1981 tcaagaccca tcagtgtgct gtattcagga aaccatctc acgtgcagag acacacatag
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2461 cttttcggca ccacaccaca ccgattccaa aattgaacac atagttggaa gtaaaagcact
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Y

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4441 acttttaaaa gttggcaaat tcacctgcat tgatactatg atggggtagg gatagggtga
4501 agtatttaga agatgttctt cacacaaatt tatcccaaac ggaagcatgt cctagcttac
4561 tctagtgtag ttctgttctg ctttgggaaa aatataagga gattcactta agtagaaaaa
4621 taggagactc taatcaagat ttagaaaaga agaaagtata atgtgcata caattcatac
4681 atttaactta cacaaatata ggtgtacatt cagaggaaaa gcgatcaagt ttatttcaca
4741 tccagcattt aatatttgtc tagatctatt tttattttaa tctttatttg caccattt
4801 agggaaaaaa ttttgtgtt cattgactga attaacaaat gaggaaaatc tcagcttctg
4861 tgttactatc atttggatc ataacaaaat atgtaatttt ggcattcatt ttgatcattt
4921 caagaaaatg cgaataatta atatgtttgg taagcttgaa aataaaggca acaggcctat
4981 aagacttcaa ttgggaataa ctgtatataa ggtaaactac tctgtacttt aaaaaattaa
5041 catttttctt ttatagggat ctgaaacaac attcatgtgt gaatatgctg atgagacagc
5101 aaccatttga gaatttctga acagatggat taccttttgt caaagcatca tctcaacact
5161 gacttgataa ttaagtgtt cccactttaa acatatcagg ccttctattt atttaatat
5221 ttaaaattta tatttattgt tgaatgtatg gtttgcctacc tattgttaact attattctta
5281 atcttaaaac tataaatatg gatcttttat gattcttttt gtgccctagg ggctctaaaa
5341 tggtttctact tatttatccc aaaatattta ttattatggt gaatgttaaa tatagtctta
5401 tgtagatttg ttagtaaaac tattttaataa atttgataaa tataaacaag cctggatatt
5461 tgttattttg gaaacagcac agagtaagca tttaaatatt tcttagttac ttgtgtgaac
5521 tgtaggatgg ttaaaatgct taaaaagtc actctttctc tgaagaaata tgtagaacag

5581 agatgtagac ttctcaaaag cccttgcttt gtcctttcaa gggctgatca gacccttagt
 5641 tctggcatct cttagcagat tataattttcc ttcttcttaa aatgccaaac acaaacactc
 5701 ttgaaactct tcatagattt ggtgtggcta tgaattc

(2) INFORMATION FOR SEQ ID NO:2531:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5561 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2531:

1 cgaattcccc taccaccta gtgtgggcta atgtaacaaa gagggatttc acctacatcc
 61 attcagtcag tctttggggg tttaaagaaa ttccaaagag tcatcagaag agggaaaaatg
 121 aaggtaatgt tttttcagac tggtaaagtc tttgaaaata tgtgtaatat gtaaaacatt
 181 ttgacacccc cataaatatt ttccagaatt aacagtataa attgcatctc ttgttcaaga
 241 gttccctatc actctttaat cactactcac agtaacctca actcctgcc caatgtacag
 301 gatgcaactc ctgtottgca ttgactaag tcttgcaatt gtcacaaaca gtgcacctac
 361 ttcaagttct acaagaaaaa cacagctaca actggagcat ttactgctgg atttacagat
 421 gaatttgaat ggaattaatg taagtatat ttctttctta ctaaaattat tacatttagt
 481 aatctagctg gagatcattt ctttaataca atgcattata ctttcttaga attacaagaa
 541 tcccaaacctc accaggatgc tcacatttaa gttttacatg cccaagaagg taagtacaat
 601 attttatgtt caatttctgt ttaataaaaa ttcaaagtaa tatgaaaatt tgcacagatg
 661 ggactaatag cagctcatct gaggtaaaga gtaactttta ttgtttttt tgaaaaccca
 721 agtttgataa tgaagcctct attaaaacag ttttacctat atttttaata tatatttgtg
 781 tgttggtggg ggtgggagaa aacataaaaa taatattctc tcaactttatc gataagacaa
 841 ttctaaacaa aatgtttcat ttatggtttc atttaaaaat gtaaaactct aaaatatttg
 901 attatgtcat tttagtatgt aaaataccaa aatctatttc caaggagccc acttttaaaa
 961 atcttttctt gttttaggaa aggtttctaa gtgagaggca gcataacact aatagcacag
 1021 agtctggggc cagatatctg aagtgaatc tcagctctgc catgtcctag ctttcatgat
 1081 ctttggcaaa ttacctactc tgtttgtgat tcagtttcat gtctacttaa atgaataact
 1141 gtatatactt aatatggctt tgtgagaatt agtaagtaa tgtaaagcac tcagaaccgt
 1201 gtctggcata aggtaaatc catacaagca tttagctatta tttagtagtataaaagataaa
 1261 attttcactg agaatacaaa agtaaaattt tggactttat ctttttacca atagaacttg
 1321 agatttataa tgcataatga cttattttcc aagattaaaa gcttcattag gttgttttg
 1381 gattcagata gagcataagc ataatactcc aagctcctag gctacattag gtgtgtaaag
 1441 ctacctagta gctgtgccag ttaagagaga atgaacaaaa tctggtgcc gaaagagctt
 1501 gtgccagggt gaatccaagc ccagaaaaata ataggattta aggggacaca gatgcaatcc
 1561 cattgacta aattctatta attcaagaga aatctgcttc taactaccct tctgaaagat
 1621 gtaaaggaga cagcttacag atgttactct agtttaatca gagccacata atgcaactcc
 1681 agcaacataa agatactaga tgctgttttc tgaagaaaat ttctccacat tgttcatgcc
 1741 aaaaacttaa acccgaattt gtagaatttg tagtgggtga ttgaaagcgc aatagatgga
 1801 catatcaggg gattggtatt gtcttgacct acctttccca cttaaagagt ttagaagat
 1861 gagattatgt gcataattta ggggtgtag aattcatgga aatctaagtt tgaaccacaa
 1921 agtaaatgata aactctattc atttggctat ttaacctcca ttgcacattt acaaaagatt
 1981 ttagaacta ataaaaatat ttgattccaa ggatgctatg ttaatgctat aatgagaaag
 2041 aatgaaatc taattctggc tctacctact tatgtggtca aattctgaga tttagtgtgc
 2101 ttatttataa agtggagatg atacttcaat gcctacttca aaagatgact gtgagaagta
 2161 aatgggccta ttttgagaa aattctttta aattgtaata taccatagaa atagaaata
 2221 ttatatataa tatagaatca agaggcctgt ccaaaagtcc tcccaaagta ttataatctt
 2281 ttatttcaat gggacaaaca tttttaaaat gcactttaat gtagtgattg tagaaaagta
 2341 aaaatttaag acatatttta aaatgtgtct tgctcaaggc tatattgaga gccactacta
 2401 catgattatt gttacctagt gtaaaatgtt gggattgtga tagatggcat ccaagagttc
 2461 cttctctctc aacattctgt gattcttaac tcttagacta tcaaatatta taatcataga
 2521 atgtgatttt tatgccttcc acattctaat ctcatctggt tctaattgatt ttctatgcag
 2581 attgaaaaag taatcagcct acatctgtaa taggcattta gatgcagaaa gtctaactt
 2641 ttgcaaaagg aaattaagct aaaccagtg agtcaactat cacttaacgc tagtcatagg
 2701 tacttgagcc ctagtttttc cagttttata atgtaaactc tactgggtcca tctttacagt
 2761 gacattgaga acagagagaa tggtaaaaac tacatactgc tactccaaat aaaaataatt
 2821 ggaaattaat ttctgattct gacctctatg taaactgagc tgatgataat tattattcta
 2881 ggccacagaa ctgaaacatc ttcagtgtct agaagaagaa ctcaaacctc tggagggaag
 2941 gctaaattta gctcaaaagc aaaactttca cttaagaccc agggacttaa tcagcaatat
 3001 caacgtaata gttctggaac taaaggtaag gcattacttt atttgccttc ctggaaataa

3061 aaaaaaaaaa gtagggggaa aagtaccaca ttttaaagtg acataacatt tttgggtattt
3121 gtaaagtacc catgcatgta attagcctac attttaagta cactgtgaac atgaatcatt
3181 tctaagtgtta aatgattaac tggggagtat aagctactga gtttgacact accatctact
3241 aatggacaag cctcatccca aactccatca cctttcatat taacacaaaa ctgggagtga
3301 gagagaagtg actgagttga gtttcacaga aacgcaggca agatttttatt atatatatttt
3361 caagttcctt cacagatcat ttactggaat agccaatact gagttacctg aaaggtcttt
3421 caaatgggtgt ttccttatca tttgatggaa ggactacca taagagattt gtcttaaaaa
3481 aaaaaacttg agccattaaa atggccagt gactaaacaa acaacaatct ttttagaggc
3541 aatcccactt tcagaatctt aagtattttt aaatgcacag gaagcataaa atatgcaagg
3601 gactcaggtg atgtaaaaa gattcacttt tgtcttttta tatcccgctt cctaagggtat
3661 aaaattcatg agttaatagg tatcctaaat aagcagcata agtatagtag taaaagacat
3721 tcctaaaaagt aactccagt gtgtccaaat gaatcactta ttagtggact gtttcagttg
3781 aattaaaaaa atacattgag atcaatgtca tctagacatt gacagattca gttccttatc
3841 tatggcaaga gttttactct aaaataatta acatcagaaa actcattctt aactcttgat
3901 acaattttta gacaaaacca tgcaaaaatc tgaaaactgt gtttcaaaag ccaaacactt
3961 tttaaaataa aaaaatccca agatatgaca atatttaaac aattatgctt aagaggatac
4021 agaacactgc aacagttttt taaaagagaa tacttattta aagggaacac tctatctcac
4081 ctgcttttgt tcccagggtg ggaatcactt caaatttgaa aagctctctt ttaaatctca
4141 ctatatatca aaatagttgc ctcttagct tatcaactag aggaagcgtt taaatagctc
4201 ctttcagcag agaagcctaa tttctaaaaa gccagtcac agaacaaaat ttctaattgt
4261 taaagctttt aaaagttggc aaattcacct gcattgatac tatgatggg tagggtatgg
4321 tgttaagtatt tatgaagatg ttcatcaca caaatttacc caaacaggaa gcatgtccta
4381 cctagcttac tctagtgtag ctctgttctg ctttggggaa aatataagga gattcactta
4441 agtagaaaaa taggagactc taatcaagat ttgaaaaaga agaaagtata atgtgcatat
4501 caattcatac atttaactta cacaaatata ggtgtacatt cagaggaaaa gcgatcaagt
4561 ttatttcaca tccagcattt aatatttgct tagatctatt tttatttaa tctttatttg
4621 cacccaattt agggaaaaaa tttttgtgtt cattgactga attaacaat gaggaatac
4681 tcagcttctg tgttactatc atttggatc ataacaaaat acgcaattt ggcattcatt
4741 ttgatcattt caagaaaatg tgaataatta atatgtttg taagcttgaa aataaaggca
4801 acaggcctat aagacttcaa ttgggaataa ctgtatataa ggtaaacac tctgtacttt
4861 aaaaaattaa catttttctt ttatagggt ctgaaacaac attcatgtgt gaatatgctg
4921 atgagacagc aaccattgta gaatttctga acagatggat taccttttgt caaagcatca
4981 tctcaact gacttgataa ttaagtgtt cccacttaa acatatcagg ccttctattt
5041 atttaaatat ttaaatttta tatttattgt tgaatgtatg gtttgctacc tattgtaact
5101 attattctta atcttaaac tataaatatg gatcttttat gattctttt gtaagcccta
5161 ggggctctaa aatggtttca cttatttat ccaaaatatt tattattatg ttgaatgta
5221 aatatagtat ctatgtagat tggtagtaa aactatttaa taaatttgat aaatataaac
5281 aagcctggat atttgttatt ttggaaacag cacagagtaa gcatttaaat atttcttagt
5341 tacttggtg aactgtagga tggtaaaat gcttacaaa gtcactctt ctctgaagaa
5401 atatgtagaa cagagatgta gacttctcaa aagcccttgc tttgtcctt caagggtga
5461 tcagaccctt agttctgca tctcttagca gattatatt tccttcttct taaaatgcca
5521 aacacaaaca ctctgaaac tcttcataga tttggtgtgg c

(2) INFORMATION FOR SEQ ID NO:2532:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 844 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2532:

1 ccccataata tttttccaga attaacagta taaattgcat ctcttggtca agagttccct
61 atcactctct ttaatcacta ctcacagtaa cctcaactcc tgccacaatg tacaggatgc
121 aactcctgtt ttgcattgca ctaagtcttg cacttgctac aaacagtga cctacttcaa
181 gttctacaaa gaaaacacag ctacaactgg agcatttact gctggattta cagatgattt
241 tgaatggaat taataattac aagaatccca aactcaccag gatgctcaca tttaggtttt
301 acatgcccaa gaaggccaca gaactgaaac atcttcagt tctagaagaa gaactcaaac
361 ctctggagga agtgctaaat ttagtctcaa gcaaaaactt tcacttaaga cccagggact
421 taatcagcaa tatcaacgta atagttctgg aactaaagg atctgaaaca acattcatgt
481 gtgaatatgc tgatgagaca gcaaccattg tagaatttct gaacagatgg attacctttt
541 gtcaaagcat catctcaaca ctgacttgat aattaagtgc ttcccactta aaacatatca
601 ggcttctat ttatttaaat atttaaat tttatatttatt gttgaatgta tggtttgcta
661 cctattgtaa ctattattct taatcttaaa actataaata tggatctttt atgattcttt

721 ttgtaagccc taggggctct aaaatggttt cacttattta tccccaaaata tttattatta
 781 tgttgatgt taaatatagt atctatgtag attggttagt aaaactattt aataaatttg
 841 ataa

(2) INFORMATION FOR SEQ ID NO:2533:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22421 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2533:

1 cttcaactca ataagcattt taagtattct aatcttagta tttctctagc tgacatgtaa
 61 gaagcaatct atcttattgt atgcaattag ctcatgtgt ggataaaaag gtaaaacat
 121 tctgaaacag gaaaccaata cacttcctgt ttaatcaaca aatctaaaca tttattcttt
 181 tcattctgttt actcttgctc ttgtccacca caatatgcta ttcacatggt cagtgtagtt
 241 ttatgacaaa gaaaattttc tgagttactt ttgtatcccc acccccttaa agaaaggagg
 301 aaaaactggt tcatacagaa ggcgttaatt gcatgaatta gagctatcac ctaagtgtgg
 361 gctaagttaa caaagaggga ttccacctac atccattcag tcagtctttg ggggtttaa
 421 gaaattccaa agagtcacat gaagaggaaa aatgaaggta atgttttttc agacaggtaa
 481 agtctttgaa aatatgtgta atagttaaaa cattttgaca ccccataat attttccag
 541 aattaacagt ataaattgca tctctgttcc aagagttccc tatcactctc ttaatacact
 601 actcacagta acctcaactc ctgccacaat gtacaggatg caactcctgt ctgtcattgc
 661 actaagtctt gcacttgtca caaacagtgc acctacttca agttctacaa agaaaacaca
 721 gctacaactg gagcatttac ttctggattt acagatgatt ttgaatggaa ttaatgtaag
 781 tatatttctt ttcttactaa aattattaca tttagtaatc tagctggaga tcatttctta
 841 taacaatgca ttatactttc ttagaattac aagaatccca aactcaccag gatgtcaca
 901 ttttaagtttt acatgcccaa gaaggtaagt acaatatttt
 1 gaattccctt ttcttagtca aagaaagggg tgacagacag cacctggaaa atcgtgtcac
 61 tcccacccta atactgcgtc ttccaatgg tcttagcaaa cagcacacca agagattata
 121 tccagcacct ggctcagagg gtcttatgcc cacggagcct cactcactgc tagcacagca
 181 gtctgagatc aaactgcaag gtggcagtga ggctgggaga ggggtgtgca ccattgccga
 241 ggcttgagta ggtaaacaaa gcagctggga agctcgaact ggggtggagcc cactgcagct
 301 caaggaggcc tgctgcctc tgtagactcc acctccgggg gcagggcata gccaaacaaa
 361 aggcagcaga aacctctgca gacttaaatg tcctgtctg acagcttgga agagatagt
 421 ggttctccca gcatgcagct tgagatctga gaatggacag actgcctcct caagtgggtc
 481 cctgaccccc gagtaacctt actgggaggc accccaagta ggggcagact gacacctcac
 541 atggctgggt actcctctga gaaaaaactt ccagaggaaac gatcaggcag caacatttgc
 601 tgttcccaa tatccactgt tctgcagcct cctgtgctaa taccaggca aatgggtctg
 661 gagaggcaat ccagcaagct ccaacagacc tacagctgag ggtcctgact gttagaagga
 721 aaactaacia acagaaagga catccacacc aaaaccctat ctgtacggca ccattcatcaa
 781 agaccaaaag tagataaaac cacaagatg gggaaaaaaa cacagcagaa aaactggtaa
 841 ctctaaaaat tagagcgctt ctctcctcct aaaggaacgc agctcctcac cagcaatgga
 901 accaagctgg acagagaatg actttgacga gttgagagaa gaaggcttca gatgatcaaa
 961 ctactctgag ctaaaggagg aagttcgaac ccacggcaaa gaagttaaaa acctgcaaaa
 1021 aaattagatg aatggctaac tagaataacc aatgcagaga agtccttaaa ggacctgatg
 1081 gagctgaaaa ccattggcaca agaactacat gacaaatgca caagcctcag tagctgattc
 1141 gatcaactgg aagaaagggt atcagtgtat gaagatcaaa tgaatgaaat gaagcaagaa
 1201 gagaagttaa gagaaaaaag aaaaaaaaaga aatgaacaaa gcctccaaga aatatgggac
 1261 tatgtgaaaa gaccaaatct acgtctgatt ggtgtacctg aaagtgtatg ggagaatgga
 1321 accaagctgg aaaacactct gcaggatatt atccaagaga acttcccaa tctagcaagg
 1381 caggtgaca ttcaaattca ggaaatacag agaacgccac aaatataatc ctcgagaaga
 1441 gcaactccaa gacacataat tgttagattc actaaagttg aatgaagga aaaaatgtta
 1501 agggcagcca gagagaaagg tcagcttacc cacaaaggaa agcccatcag attaacagct
 1561 gatctctcgg cagaaactct acaagccaga agagagtggg ggccaatatt caacattctt
 1621 aaagaaaaga attttcaacc cagaatttca tatccagcca aactatgctt cataagttaa
 1681 ggagaaataa aatatagaca agtgaacgat gaaagatttt gtcaccacca ggcctgccct
 1741 acaagagctc ctgaaggaag cactaaacat ggaaggaac aaccggtaac agccactgca
 1801 aaaaactgcc aaattgtaaa caccattgag gccaggaaga aactgcatca actaacgagc
 1861 aaaataacca gctaaccatc tcatgacagg atcaaattca cacataacaa tattaacctt
 1921 aatgtaaat aggttaaatg ctccaattaa aagacacaga ctggcaaacct ggataaagag
 1981 tcaagacca tcagtgtgct gtattcagga aacctatctc acgtgcagag acacacatag
 2041 gctcaaaaata aagggtatgga ggaagatcta ccaaacaaac ggaaacaaa aaaaggcagg

2101 gggttgcaatc ctagtctctg ataaaaacaga ctttaaacca acaaagatca aaagagacac
 2161 agaaggccat tacataatgg taaagggatc aattcaacaa gaagagttaa ctatcctaaa
 2221 tataatatgca cccaatacag gagcacctag attcataaag caagtcctta gagacctaca
 2281 aagagactta gactcccaca caataataat gggagacttt aacacccccc tgtaacatt
 2341 agacagatca atgagacaga aaattaacaa ggatatccag gaattgaact caactctgca
 2401 ccaagcggac ctaatatagaca tctacagaac tctccacccc aaatcaacag aatatacatt
 2461 ctttttcggca ccaaccaca ccgattccaa aattgaacac atagttggaa gtaaagcact
 2521 cctcagcaaa tgtaaaagaa cagaaagtac aacaaactgt ctctcagacc acagtgcatt
 2581 caaactaaaa ctcaggatta agaaactcac tcaaaaccgc tcaactacat ggaaactgaa
 2641 caacctgctc ctgaatgact actgggtaca taacgaaatg aaggcagaa gtaaagatgtt
 2701 ctttgaaacc aacgagaaca aagacacaa ataccagaat ctctgggaca cattcaaagc
 2761 agtgtgtaga ggaaaaattta tagcactaaa tgcccacaag agaaagcagg aaagatctaa
 2821 aattgacagc ctaacatcac aattaaaaga actagagaaa caagagcaaa cacattcaaa
 2881 agctagcaga aggcaagaaa taactacaat cagagcagaa ctgaaggaga tagagacata
 2941 caaaaaaccc ttcaaaaaat caatgaatcc aggagctggt tttttgaaaa gatcaacaaa
 3001 attgatagac cactagcaaa actaatcac aagagagaag aatcaaata acacaataaa
 3061 aaatgataaa cgggatatca ccactgatcc cacagaaata caaactacca tcaagaata
 3121 ctataaacac ctctatgcaa ataaactaga aaatctagaa gaaatggata aattcctcga
 3181 cacatacacc ctcccagac taaaccagga agaagctgaa tctctgaata gaccaataac
 3241 aggtctctgaa attgaggcaa caattaacac cttaccaacc aataaaagtc caggaccaga
 3301 tggattcaca gccaaattct accagaggta caaggaggag ctggtagcat tccttctgaa
 3361 actattccaa tcaatagaaa aagagggaat cctccctaac tcattttatg aggccagcat
 3421 catectgata ccaaagcctg gcagagacac aacaaaaaaa gagaatttca gaccaatate
 3481 cctgatgaac atcgatgcaa aaatttttaa taaaatactg gcaaactgaa tccagcagca
 3541 catcacaag cttatccacc atgatcaagc tggcttcatt cctgggagtc aaggctggtt
 3601 caacatacgg aaaatcaata aatgtaatcc agcatataaa cagaaccaac aacacacaac
 3661 acatgattat ctcaacagat gcagaaaagg ctttgacaa aattcaacag ccttctatgc
 3721 taaaaactct caataaatta ggtactgatg ggacgtatct caaaataata agcgtatct
 3781 atgaccaacc cacagccaat atcatactgg atgggcaaaa actggaagca ttcctttga
 3841 aaactggcac aagacaggga tgccctctct caccactcct attcaacaca gtgttcgaag
 3901 ttctggcagg gcaatcaggc aggagaagga aataaagggt attcaattag gaaaagagga
 3961 ggtcaaattg tccctgtttg cagatgacat gattgtatat atagaaaacc ccattgtctc
 4021 agcccaaat ctcttaagc tgataagcaa cttcagcaaa gtctcaggat caaatcaat
 4081 gtgcaaaaat cacaagcatt cttatacacc aataacagac aaacagagag ccaaatcatg
 4141 agtgaactcc cattcacaat tgcttcaaag agaataaaat acctaggaat ccaactcaca
 4201 agggatgtga gagacctctt caaggagaac tataaaccac tgctcaatga aatgagagga
 4261 tacagataaa tggaagaaca ttccatgctc atgggttaga agaatacaata tcgtgaaaat
 4321 ggccatactg cccaaggtaa ttttatagat tcaatgccat ccccatcaag ctaccaatga
 4381 ctttcttcac agaattggaa aaaactactt taaagttcat atggaaccaa aaaagagccc
 4441 gcattgccaa gtcaatccta agccaaaaga acaaagctag aggcattaca ctactgact
 4501 tcaaatcata ctacaaggct acagtaacca aaacagcatg gtactgttac caaagcagag
 4561 atatagacca atggaacaaa acagtgcctt cagaaataat actgcatac tacaaccatc
 4621 tgatctttga caaacctgac aaaaacaagc aatggggaaa ggattcccta ttaataaat
 4681 ggtgctggga aaactggcta gccatatgta gaaagctgaa atggatccc ttccttacac
 4741 cttgtacaaa aattaattca agatggatta cagacttaaa tgtagacct aaaaccataa
 4801 aaaccctaga agaaaaccta ggcaatacca ttcaggacat aggcattggc aagaacttca
 4861 tgtctagaac accaaaagta atggcaacaa aagccaaaat tgacaaatgg gtctaattaa
 4921 actaaagagc ttctgcacag caaaagaaac taccatcaga gtgaagaggc aacctacaga
 4981 atgggagaaa atttttgcaa tctgacaaaa gggctaattt ttgcatctga caaagggcta
 5041 atatccagaa tctacaatga actcaacaaa atttacaaga aaaaaacaaa tttacaagaa
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 781 tgttgaatgt taaatatagt atctatgtag attggtagt aaaactattt aataaatttg
 841 ataa

(2) INFORMATION FOR SEQ ID NO:2534:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 919 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2534:

1 aggccccagtt gaaaccaggg agttgctctc ctttctcctc ccttgacctc acccctcaga
 61 ccatgccaat tctgctctct aaacctccca ggccagcccc tccccagct cccagtgcaga
 121 gtgtcctcag gtacctgagc tcagctctcg gtgctaccag agggactgca gggctgcaga
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 781 ccacctcccc cgcttgccc ggggttggtg gcacctgtct gctgcacata taaggcggga
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 901 gatccaaaca tgagccgcc

(2) INFORMATION FOR SEQ ID NO:2535:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 452 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2535:

1 gccacccacc aggaccaagc agggcgggca gcagagggcc agggtagtcc aggtgatggc
 61 agatgagatc ccactgggca ggaggctca gtgagctgag tcaggcttcc ccttctgccc
 121 acaggggtcc tctcacctgc tgccatgctt cccatctctc atctccttg acaagatgaa
 181 gtgataccgt ttaagtaate ttttttcttg tttcactgat cttgagtact agaaagtcat
 241 ggatgaataa ttacgtctgt ggttttctat ggaggttcca tgtcagataa agatccttcc
 301 gacgcctgcc ccacaccacc acctcccccc gccttgcccg gggttggtgg caccttgctg
 361 ctgcacatat aaggcgggag gttgttgcca actcttcaga gccccacgaa ggaccagaac
 421 aagacagagt gcctctgccc gatccaaaca tg

(2) INFORMATION FOR SEQ ID NO:2536:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2749 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2536:

```

1 gatccaggag accagtctcc tagtaccagg tctgcttgcc taaacttggg .gtataagagc
61 catagacact gtctcttcga tcagtccttg cccccacccc ctgctgttgc acccttatct
121 ttcaccctat tgctcctgca ttgaagacag aagcaccagc ttccccctgc ctacagcataa
181 cttgctagcc ttcatttcct cgtgctgggc acatcacacc acaacccgac ccaaaccttg
241 gtttctctac catgcccctg cttccctgca ccccaggctt gtcacactca tcttctacca
301 aaactccagc tttgtgtgtg ggccctgtcaa cctgtcccat ggaaaagggg gccaccccat
361 ccttcaggga ctgtcccctg gctctccaca ctccctggctt tgccactttc tctctagctg
421 tggtttctca ggtcctttga gaacttccca taactgtccc tgtttccttc ccacctctgt
481 aggcctgagc tgcaaacagg ctcccactcc acccaggctc caggggcgac tgggatttag
541 atccctcaat atggcttttc ttcagggagt agttctcttc tctcctcttg cctccccggc
601 tcaaaccttg ccattgccac tgctacaccg tctgcagctc cccagtaact aacactattc
661 tcaaggccca cctttgtccc taggtcccta agcctaatta tctgagttat cagaaggatg
721 gcctagtgtt tgcagtcata tctccatcaa gggttctgtc ctctagatgt gggccttagc
781 gcattgcctt actgactgca gactagacca gtgaaggagt gagctgaact ccatatccac
841 ctgcaaggaa taagggtcaa tgggaaggct gcctagaggg agagggagct ctgactacca
901 gcggccagag gactagccca cccatggacg ttttaacctg tgccagaatg cctaccatgt
961 tcaagtttgc cccagtgaac ctggtggccc actaatagtg gtggcccaca gtcaggggca
1021 gatttgtaca agggatggta ggaagagggt ccagtgcaca gaaaccccaa gctggctcgg
1081 agccaggcta cttctcccca ccacctgttt ccactcggtc catctctatg acaaggaaag
1141 aagatggcct ttgaataagc agtctttctt cccatgtcga taattttgag tactagaaaa
1201 cgatgaataa gtctgtgggt tgctatggag gttccatgtc agataaagct gcttctgatg
1261 cctgcccttc ccccatgcc ctgctggggg cccgccccgc cctctctgat gaatatatat
1321 aaggtgaagg ctccctgtggc ttcttcagaa ctctttggag gaccagaacg agacaatggt
1381 tcttgccagc tctaccacca gcatcctctg tatgtgtc cgcctcctga tgccttcca
1441 ccagggaetc cagatttcag acaggggctc agatgccac catttactca ggacgttggg
1501 ttgcaggact attgccttgg agatttttgt gaagctccca gtgagtagct ggctgaggtt
1561 agcctgggca ggctggcttc aacaggtgcc tcggaccaat aagcctcatg attctttctt
1621 ttagtatect caggtatctg gactcaataa tagtgacgac aaagccaatc tgagggtaag
1681 agccctgctc ttgggcattc ttgggttcca tctgtctcct gctgggtga ctttagccat
1741 gtcactgcac cctgctttgc ttccgttttc acatctatct cagtgggggtt attaaggaaa
1801 tcatcagatg actctctgag cctcagctctg tgccacagcc agctgcaata atgaaagtgt
1861 cattttagga gatacaatgg agagagaact gtgagtgaac cctgccacag gcctctggct
1921 ccactttcag tggggatgcc atggggatgc catggaccag tgaacgagtt gccttctgtg
1981 actgtgtctt ttgcttttct tctcctcca aaactgagct tglgttctcc acttcacca
2041 gcctaagaca ttaccatttg cagttatttt cccagctcta gttagataca atggttctgt
2101 ttctgtttta tttgtttgca agcgtgctga gtgtctacgt ttccccctcc tagggacatg
2161 atgaagtctg taggattttc ttctagatat ctagaagttc ttaattaaat taaagcattg
2221 gggttgggga tttagctcag tggtagagtg cttgcctagc aagcgcaagg ccttgagttc
2281 attccccagc tccgaaaaaa agaaaaaaga aaaagaaaaa aaattaaagc attaaccttg
2341 gtgtttggca tcttgggcat aagtatttcc cttggccaac cttctgcctt ttctagagct
2401 tgtctggaga gatatgttcc ctttaaaaac agacagatct gcttagagcc ttcacacagt
2461 ccacaggctg ccagggggta agacctggtg ctacaggaga acaggccctt gcttgggatg
2521 tgccctagct ttagccccag gataaggaaa ggaccaggag taaggctgtt caaagaaacc
2581 tctaacagca gtcacacctc cccagctctc acctccccag ctctcacctc cccagctctc
2641 acctctcccg ctctcacctc cccagctctc acctctccag ctctcacctc cccagttctc
2701 acctccccag ctctcacctc tccagctctc acctccccag ctctcacct

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(2) INFORMATION FOR SEQ ID NO:2537:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 923 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2537:

```

1 cagagcccca cgaaggacca gaacaagaca gagtgcctcc tgccgatcca aacatgagcc
61 gcctgcccgt cctgctcctg ctccaactcc tggtcgccc cggactccaa gctcccatga
121 cccagacaac gcccttgaag acaagctggg ttaactgtc taacatgatc gatgaaatta
181 taacacactt aaagcagcca ctttgcctt tgctggactt caacaacctc aatggggaag
241 accaagacat tctgatggaa aataaccttc gaaggccaaa cctggaggca ttcaacaggg
301 ctgtcaagag tttacagaa gcatcagcaa ttgagagcat tcttaaaaat ctccctgcat
361 gtctgcccct ggccacggcc gcacccacgc gacatccaat ccatatcaag gacgggtgact

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421 ggaatgaatt cgggaggaaa ctgacgttct atctgaaaac ccttgagaat ggcgaggtc
 481 aacagacgac tttgagcctc gcgactcttt agtccaacgt ccagctcggt ctctgggcct
 541 tctcaccaca gagcctcggg acatcaaaaa cagcagaact tctgaaacct ctgggtcatc
 601 tctcacacat tccaggacca gaagcatttc accttttctt gcggcatcag atgaattgtt
 661 aattatctaa tttctgaaat gtgcagctcc catttggcct tgtgcggttg tgttctcatt
 721 tttatcccat tgagactatt tatttatgta tgtatgtatt tatttattta ttgcctggag
 781 tgtgaactgt atttatttta gcagaggagc catgtcctgc tgcttctgca aaaaactcag
 841 agtgggggtg ggagcatgtt catttgtacc tcgagtttta aactggttcc tagggatgtg
 901 tgagaataaa ctgactctg aac

(2) INFORMATION FOR SEQ ID NO:2538:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 882 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2538:

1 tgtgtaagta agtgcaagct acagagaaaa ccaaggaaga aaaaaattgc cagagatcca
 61 ggtaaaaaaa aaaaaaagaa aaagaaaaaa aaaccaagga agcaatcatc ataaaagaca
 121 ggtgagtggt ttacctctaa gggcgagcag tcacgattag aggacaaata tggggagagt
 181 tttggagcgt tggcgatttt tttttgactt aagcatggtt aaatgggtga ttgcttataa
 241 ttacttggtta aattagggtta attagggttt atttcatgtt tttatgctct tttctgcatg
 301 cattttgtgct ctattttttt aattaaaaaa taaaaataag taaaactatg tttcttgac
 361 ttaaaatact ggaataccaa agagaatctg aaaaactttt agaatagaaga gagtttgga
 421 agacgggcaag aacccttgct tttccactg ggccttttct cctcccacc tgagggtgct
 481 ccatggaaaa tgcaaatcta cttaactgac tttcgcaaat gtcaaatgta gactacgaat
 541 ttcaagggga gcctggggct gtgcatatc ctgctgtgag ctacagtttt ccagcctcta
 601 gagccatctt aacaagggtg ctgcctggtg tctactacc cagtatgtgc tccaaccct
 661 gcccaggcct cctagtgtta gagaggatat agacatggcc tctccatgga aacctccagg
 721 gctggtatga caccttaaca acaaaaaagg gaggattgcc ggtacagcgg agtcccgag
 781 gaggataggt gttgccttct aggtggtagg gaggtgaga gggccatcca gtagtgggac
 841 cacgaactgg ggtctcaaca tgaagagtcg ttcacagat ct

(2) INFORMATION FOR SEQ ID NO:2539:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5925 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2539:

1 aggccagtt gaaaccagg agttgctctc ctttctctc ccttgacctc acccctcaga
 61 ccattgccaat tctgctctct aaacctccca ggccagcccc tccccagct cccagtga
 121 gtgtctcag gtacctgagc tcagctctcg gtgctaccag agggactgca gggctgcaga
 181 ggctgagtc caccagcagg gaacagccat gccactgcta gcagaccagt aagagaatgg
 241 ccacctgggg cctgagcgcc ctgcggccatc caccagaaac aaagtgtcaa ggagaagctg
 301 ccgaagccc atgggacaaa ccactgggga ctggaacacc agtaattctg tattgggaag
 361 cggcaccaag agatgtgctt ctgagagcct gaggtgaac gtggatgttt agcagcgtga
 421 ccggtacca gacaaactct catctgttcc agtggcctcc tggccacca ccaggacca
 481 gcaggcgagg cagcagagg ccagggtagt ccagggtgat gcagatgaga tcccactggg
 541 caggaggcct cagtgaagtg agtcaggctt ccccttctg ccacaggggt cctctcact
 601 gctgccatgc ttcccatctc tcatcctcct tgacaagatg aagtataacc gtttaagtaa
 661 tcttttttct tgtttcactg atcttgagta ctgaaagtc atggatgaat aattacgtct
 721 gtggttttct atggaggttc catgtcagat aaagatcctt ccgacgcctg cccacacca
 781 ccacctcccc cgcttgccc ggggtgtggt gcacctgtgt gctgcacata taaggcggga
 841 gctgttgcca actcttcaga gcccacgaa ggaccagaac aagacagagt gctcctgccc
 901 gatccaaaca tgagccgcc
 1 gccaccacc aggaccaagc agggcgggca gcagagggcc agggtagtcc aggtgatggc
 61 agatgagatc cactgggga ggagcctca gtgagctgag tcaggcttcc cttcctgccc
 121 acaggggtcc tctcactgct tgcatgctt cccatctctc atctccttg acaagatgaa
 181 gtgataccgt ttaagtaate ttttttcttg tttcactgat cttgagtact agaaagtcac
 241 ggatgaataa ttacgtctgt ggttttctat ggaggttcca tgtcagataa agatccttcc
 301 gacgcctgcc ccacaccacc acctccccc gccttgccc ggggtgtggg caccttgctg
 361 ctgcacatat aaggcgggag gttgttgcca actcttcaga gcccacgaa ggaccagaac

421 aagacagagt gcctcctgcc gatccaaaca tg
 1 gatccaggag accagtctcc tagtaccagg tctgcttgcc taaacttggg gtataagagc
 61 catagacact gtctcttcga tcagtccctg cccccacccc ctgctgttgc acccttatct
 121 ttcacctat tgctcctgca ttgaagacag aagcaccag tttccctgc ctcagcataa
 181 cttgctagcc ttcatttcc tctgctgggc acatcacacc acaaccgac ccaaaccctg
 241 gtttctctac catgccctg cttccctgca cccagggctt gtcacactca tcttctacca
 301 aaactccagc tttgtgctgt ggctgtcaa cctgtcccat ggaaaaaggg gccaccctat
 361 ccttcaggga ctgtccctg gctctccaca ctcctggctt tgccactttc tctctagctg
 421 tgggtttctca ggtcctttga gaacttccca taactgtccc tgtttccttc ccactctgt
 481 aggcctgagc tgcaaacag cctccactcc acccaggctc caggggcgac tgggatttag
 541 atccctcaat atggctttcc ttcaggaggt agttctcttc tctcctcttg ccctcccgcc
 601 tcaaacctgt ccatgccacc tgctacaccg tctgcagct ccagtaact aacactatcc
 661 tcaaggccca cctttgtccc taggtcccta agcctaatta tctgagttat cagaaggatg
 721 gcctagtgtt tgcagtcata tctccatcaa gggttctgtc ctctagatgt gggccttagc
 781 gcattgcctt actgcaactga gactagacca gtgaaggagt gagctgaact ccatatccac
 841 ctgcaaggaa taagggtcaa tgggaaggct gcctagagg agaggagct ctagctacca
 901 cgggccagag gactagccca cccatggacg ttaaccatg tgccagaatg cctaccatgt
 961 tcaagtttgc cccagtgcac ctggtggccc actaatagt gttggccaca gtcaggggca
 1021 gatttgtaca agggatggta ggaagagggt ccagtgcaca gaaaccccaa gctggctcgg
 1081 agccaggcta cttccctccc ccacctgttt ccactcggtc catctctatg acaaaggag
 1141 aagatggcct ttgaataagc agtctttctt cccatgtcga taattttgag tactagaaaa
 1201 cgatgaataa gtctgtgggt tgcctatggg gttccatgtc agataaagct gcttctgatg
 1261 cctgcccttc ccccatgcc ctgctgggg cccgccccgc cctctctgat gaatatatat
 1321 aagggtgaag ctcctgtggc tcttcagaa ctctttggg gaccagaacg agacaatggt
 1381 tcttgccagc tctaccacca gcatcctctg tatgtgtct cctgctctga tgctcttcca
 1441 ccagggactc cagatttcag acaggggctc agatgccac catttactca ggacgttggg
 1501 ttgcaggact attgccttgg agattttggt gaagctccca gtgagtagct ggtgagggt
 1561 agcctgggca ggctggcttc aacagggtgc tcggaccaat aagcctcatg attctttctt
 1621 ttagtatcct caggtatctg gactcaataa tagtgacgac aaagccaatc tgagggtaag
 1681 agccctgtct ttgggcatcc ttgggttcca tctgtctct gcctgggtga ctttagccat
 1741 gtcactgcac cctgctttgc ttccgttttc acatctatct cagtgggttt attaaggaaa
 1801 tcatcagatg actctctgag cctcagtctg tgccacagcc agctgcaata atgaaagtgt
 1861 catttttagg gatacaatgg agagagaact gtgagtgaac cctgccacag gcctctggct
 1921 ccactttcag tggggatgcc atggggatgc catggaccag tgaacgagtt gcctctgtg
 1981 actgtgtctt ttgcttttct tctcctcca aaactgagct tgtgttctcc acttccacca
 2041 gcctaagaca ttaccatttg cagttatttt cccagctcta gttagataca atgggtctgt
 2101 ttcgttttta tttgtttgca agcgtgtctg gtgtctacgt tctccctccc tagggacatg
 2161 atgaagtctg taggattttc ttctagatat ctagaagttc ttaattaaat taaagcattg
 2221 gggttgggga ttttagctcag tggtagagt gctgctagc aagcgcaagg ccctgagttc
 2281 attccccagc tccgaaaaaa agaaaaaaga aaaagaaaaa aaattaaagc attaaccttg
 2341 gtgtttggca tcttgggcat aagtatttcc cttggccaac cttctgcctt tctagagct
 2401 tgtctggaga gatattgttc ccttaaaaac agacagatct gcttagagcc ttcacacagt
 2461 ccacaggctg ccagggttta agacctgggt ctcaggagaa acaggccctt gtctgggatg
 2521 tgccctagct ttagccccag gataaggaaa ggaccaggag taaggctgtt caaagaaacc
 2581 tctaacagca gtcacacctc cccagctctc acctccccag ctctcacctc cccagctctc
 2641 acctctcccg ctctcacctc cccagctctc acctctccag ctctcacctc cccagttctc
 2701 acctccccag ctctcacctc tccagctctc acctccccag ctctcacct
 1 cagagcccca cgaaggacca gaacaagaca gagtgcctcc tgccgatcca aacatgagcc
 61 gcctgcccgt cctgtcctg ctccaactcc tggctcggcc cggactccaa gctcccatga
 121 cccagacaac gcccttgaag acaagctggg ttaactgtc taacatgatc gatgaaatta
 181 taacacactt aaagcagcca cctttgcctt tgctggactt caacaacctc aatggggaag
 241 accaagacat tctgatggaa aataaccttc gaaggccaaa cctggaggca tccaacaggg
 301 ctgtcaagag tttacagaac gcatcagcaa ttgagagcat tcttaaaaat ctcctgccat
 361 gtctgcccct ggccacggcc gcacccacgc gacatccaat ccataatcaag gacggtgact
 421 ggaatgaatt ccggaggaaa ctgacgttct atctgaaaac ccttgagaat gcgcaggctc
 481 aacagacgac tttgagcctc gcatctttt agtccaacgt ccagctcgtt ctctgggctt
 541 tctcaccaca gagcctcggg acatcaaaaa cagcagaact tctgaaacct ctgggtcatc
 601 tctcacacat tccaggacca gaagcatttc accttttctt gcggcatcag atgaattgtt
 661 aattatctaa tttctgaaat gtgcagctcc cattttgctt tgtgcggtt tgttctcatt
 721 tttatcccat tgagactatt tatttatgta tgtatgtatt tatttattta ttgcctggag
 781 tgtgaactgt atttatttta gcagaggagc catgtcctgc tgcttctgca aaaaactcag
 841 agtgggggtg ggagcatgtt catttgtacc tcgagtttta aactggttcc tagggatgtg

901 tgagaataaa ctagactctg aac
 1 tgtgtaagta agtgcaagct acagagaaaa ccaaggaaga aaaaaattgc cagagatcca
 61 gggttaaaaa aaaaaaagaa aaagaaaaga aaaccaagga agcaatcatc ataaaaagaca
 121 ggtgagtggtg ttacctctaa gggcgagcag tcacgattag aggacaaata tggggagagt
 181 tttggagcgt tggcgatttt tttttgactt aagcatggtt aaatgggtga ttgcttataa
 241 ttacttgtta aattaggtta attaggtttt atttacatgt tttatgctct tttctgcatg
 301 catttgtgct ctattttttt aattaaaaaa taaaataaag taaaactatg tttcttgac
 361 ttaaaatact ggaaaaaccaa agagaatctg aaaaactttt agaatagaaga gagttingga
 421 agacggcaag aacccttgct ttttccactg ggccctttctt cctccacccc tgagggtgct
 481 ccatggaaaa tgcaaatcta cttaaactgac tttcgcaaat gtcaaatgta gagtacgaat
 541 ttcaagggga gcctggggct gtgccatcct ctgctgtgag ctacagtttt ccagcctcta
 601 gagccatctt aacaagggtg ctgcctgggtg tctactaccc cagtatgtgc tccaacccct
 661 gcccaggcct cctagtgccta gagaggatat agacatggcc tctccatgga aacctccagg
 721 gctggtatga caccttaaca aacaaaaagg gaggattgcc ggtacagcgg agtcccgag
 781 gaggataggt gttgcctctt aggtggtagg gaggctgaga gggccatcca gagtagggac
 841 cacgaactgg ggtctcaaca tgaagagtcg ttcacagat ct

(2) INFORMATION FOR SEQ ID NO:2540:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1460 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2540:

1 gcacacggga agatatcaga aacatcctag gatcaggaca ccccatgatct tctcaactgg
 61 aaccacgaag gctgtttctt ccacacagca ctttgatctc catttaagca ggcacctctg
 121 tcctgctgtc cggagctgag tccccgatgg tctcctttg gctcacgctg ctctgatcgt
 181 ccctgccttg tctcctgcaa acgaagggaag atccaaaccc accaatcacg aacctaaagga
 241 tgaagcaaaa ggctcagcag ttgacctggg accttaacag aaatgtgacc gatcctgagt
 301 gtgttaaaga tgccgactat tctatgccgg cagtgaacaa tagctattgc cagtttggag
 361 caatttctct atgtgaagtg accaactaca ccgtccgagt ggccaaccca ccattctcca
 421 cgtggatcct ctccctgag aacagtggga agccttgggc aggtgcggag aatctgacct
 481 gctggattca tgacgtggat ttcttgagct gcagctgggc ggtaggcccg ggggcccccg
 541 cggacgtcca gtacgacctg tacttgaacg ttgccaacag gcgtcaacag tacgagtgtc
 601 ttactacaaa aacggatgct cagggaacac gtatcgggtg tegtctcgat gacatctctc
 661 gactctccag cgtttctcaa agttccaca tctgtgtgag gggcaggagc gcagccttcg
 721 gtatccctcg cacagataag ttgtgctgtt ttccacagat tgagatatta actccaccca
 781 acatgactgc aaagtgtaat aagacacatt cctttatgca ctggaaaaatg agaagtcatt
 841 tcaatcgcaa atttcgctat gagcttcaga tacaagaagag aatgcagcct gtaatcacag
 901 aacaggtcag agacagaacc tcttccagc tactcaatcc tggaaactac acagtacaaa
 961 taagagcccg ggaaagagtg tatgaattct tgagcgcctg gagcaccccc cagcgttcg
 1021 agtgcgacca ggaggagggc gaaacacac gtgcctggcg gacgtcgtg ctgatcgcg
 1081 tggggacgct gctggccctg gtctgtgtct tcgtgatctg cagaaggat ctggtgatgc
 1141 agagactctt tccccgcac cctcacatga aagaccccat cggtgacagc ttccaaaacg
 1201 acaagctggt ggtctgggag gcgggcaaa cggcctgga ggagtgtctg gtgactgaag
 1261 tacagtgctg gcagaaaact tgagactggg gtccagggtc tgtgggggtc tgctcaatc
 1321 tccctggcgg ggccaggcgc ctgcacagac tggtgctggt acctgcgcac gcagcccagg
 1381 aatggacatt cctaacgggt ggtgggcagtg ggagatgcct gtgtaatttc gtccgaagct
 1441 gccaggaaga agaacagaac

(2) INFORMATION FOR SEQ ID NO:2541:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 614 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2541:

1 gatcgtagc ttctcctgat aaactaattg cctcacattg tcaactgaaa tcgacaccta
 61 ttaatgggtc tcacctccca actgcttccc cctctgttct tctgctagc atgtgcccgc
 121 aactttgtcc acggacacaa gtgcgatatc accttacagg agatcatcaa aactttgaac
 181 agcctcacag agcagaagac tctgtgcacc gatttgaccg taacagacat cttgtctgcc
 241 tccaagaaca caactgagaa ggaaaccttc tgcagggtcg cgaactgtgct ccggcagttc
 301 tacagccacc atgagaagga cactcgtgct ctgggtgcga ctgcacagca gttccacagg

361 cacaagcagc tgatccgatt cctgaaacgg ctcgacagga acctctgggg cctggcgggc
 421 ttgaattcct gtccgtgtgaa ggaagccaac cagagtacgt tggaaaaactt cttggaaaagg
 481 ctaaagacga tcatgagaga gaaatattca aagtgttcga gctgaatatt ttaattttatg
 541 agtttttgat agctttattt ttttaagtatt tatatatatta taactcatca taaaataaag
 601 tatatataga atct

(2) INFORMATION FOR SEQ ID NO:2542:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9900 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2542:

1 gaattcaata aaaaacaagc agggcgcggt gtggggcact gactaggagg gctgatttgt
 61 aagtttggtta gactgtagct ctttttcccta attagctgag gatgtgttta ggttccattc
 121 aaaaagtggg cattcctggc caggcatggt ggctcacacc tgtaattctca gagctttggg
 181 agactgaggt agaggatca cttgagccca ggaatttgag atgagcctag gcaacatagt
 241 gagactctta tctctatcaa aaaataaaaa taaaaatgag ccaggcatgg tgcggtggac
 301 cagcgcacta ctgctagggg ggctgaggtg ggaggatcat tgagcctggg aggttgaggc
 361 tgcagtgatc cctgatcaaa cattgcattt cagcctgggt gacagagtga gacctgtct
 421 cagaaaaaaa aaaaaaaagt cattcctgaa acctcagaat agacctacct tgccaagggc
 481 ttccttatgg gtaaggacct tatggacctg ctgggaccca aactaggcct cacctgatac
 541 gacctgtcct tctcaaaaaca ctaaaccttg gagaacattg tccccagtg ctggggtagg
 601 agagtctgac tgttattctg cctctatgca gagaaggagc ccagatcat cttttccatg
 661 acaggacagt ttccaagatg ccacctgtac ttggaagaag ccagggtaaa atacttttca
 721 agtaaaactt tcttgatatt actctatctt tccccaggag gactgcatta caacaaattc
 781 ggacacctgt ggcctctccc ttctatgcaa agcaaaaagc cagcagcagc cccaagctga
 841 taagattaat ctaaagagca aattatggtg taatttcccta tgctgaaact ttgtagttaa
 901 ttttttaaaa aggtttcatt ttctatttgg tctgatttca caggaacatt ttacctgttt
 961 gtgaggcatt ttttctctg gaagagaggt gctgattggc cccaagtgc tgacaatctg
 1021 gtgtaacgaa aatttccaat gtaaacctcat tttccctcgg tttcagcaat tttaaatcta
 1081 tatatagaga tatctttgtc agcattgcat cgttagcttc tccgtataaa ctaattgcct
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 1861 cctggtcaaa gaaaagccct cttgggtttt acttagcttt ggcatagtgc ctggaacgta
 1921 ggaggcactc aataaatgcc tgttgaatga gagaattttt ctggcccata catttctgaa
 1981 aaaccaataa ctctcacaga aacagatatt gagatgacag gttgaggagg ctttcathtt
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2941 tagccactgc acctgggcaa cagtttatgt gtgtgtgtgt gtgtgtgtgt atatatgtgt
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9361 gcagataggt aatggtatac agtaaccatt tctagaagtg taagtagtat gcacccaaaa
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9661 tgagagagaa atattcaaaag tgttcgagct gaatatatta atttatgagt ttttgatagc
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(2) INFORMATION FOR SEQ ID NO:2543:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10514 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2543:


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6901 actcgctgcc tgggtgcgac tgcacagcag ttccacaggc acaagcagct gatccgattc
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9121 gggggtagca tctggaatcc tttccacctt tagggctgct gtgctgcggt gctgtgttt
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9241 gccagtaga gcaccgggca ggtctgagcc agcatcttca agttccaccc tgtgagcaag
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9361 gcagataggt aatggtatac agtaaccatt tctagaagtg taagtagtat gcacccaaaa
9421 taggcaaaac ctgctggcct agtgatagag acaactccca gtcaggctag actggaggcc
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9721 tttatttttt aagtatttat atatttataa ctcatcataa aataaagtat atatagaatc
9781 taacagcaat ggcatttaat gtattggcta tgtttacttg acaaatgaaa ttatggtttg
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(2) INFORMATION FOR SEQ ID NO:2544:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3597 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2544:

```

1  ggccaagtga gcagggggcg gcagataatt aaagatttac acacagctgg aagaaatcat
61 agagaagccg ggcgtggttg ctcatgccta taatcccagc acttttggag gctgaggcgg

```

121 gcagatcact tgagatcagg agttcgagac cagcctgggtg ccttggcctc tcccaatggg
181 gtggcctttgc tctgggctcc tgttccctgt gagctgcctg gtcctgctgc aggtggcaag
241 ctctgggaac atgaaggtct tgaggagcc cactgcgctc tccgactaca tgagcatctc
301 tacttgcgag tggagatga atggtccac caattgcagc accgagctcc gcctgttgta
361 ccagctgggt tttctgctct ccgaagccca cacgtgtatc cctgagaaca acggaggcgc
421 ggggtgcgtg tgccacctgc tcatggatga cgtggctcagt gcggataact atacactgga
481 cctgtgggct gggcagcagc tgctgtggaa gggctccttc aagccagcgc agcatgtgaa
541 acccagggcc ccaggaaacc tgacagtcca caccaatgtc tccgacactc tgctgctgac
601 ctggagcaac ccgtatcccc ctgacaatta cctgtataat catctcacct atgcagtcaa
661 catttggagt gaaaacgacc cggcagattt cagaatctat aacgtgacct acctagaacc
721 ctccctccgc atcgcagcca gcacctgaa gtctgggatt tcctacaggg cacgggtgag
781 ggcttgggct cagtgtctata acaccacctg gagtgagtgg agccccagca ccaagtggca
841 caactectac agggagccct tcgagcagca cctcctgctg ggcgtcagcg tttcctgcat
901 tgtcatcctg ccgctctgcc tgttgtgcta tgtcagcatc accaagatta agaaagaatg
961 gtgggatcag attcccaacc cagcccgcag ccgctcctg gctataataa tccaggatgc
1021 tcaggggtca cagtgggaga agcggctccg agggcaggaa ccagccaagt gccacactg
1081 gaagaattgt cttaccaagc tcttgccctg ttttctggag cacaacatga aaagggatga
1141 agatcctcac aaggctgcc aagagatgcc tttccagggc tctggaaaat cagcatgggtg
1201 cccagtgagg atcagcaaga cagtcctctg gccagagagc atcagcgtgg tgcgatgtgt
1261 ggagttgttt gagggcccg tggagtgtga ggaggaggag gaggtagagg aagaaaaagg
1321 gagcttctgt gcctgcctg agagcagcag ggatgacttc caggagggaa gggagggcat
1381 tgtggcccg ctaacagaga gcctgttctt ggacctgtc ggagaggaga atgggggctt
1441 ttgccagcag gacatggggg agtcatgcct tcttccacct tcgggaagta cgagtgtcta
1501 catgccctgg gatgagttcc caagtgcagg gcccaaggag gcacctccct ggggcaaggga
1561 gcagcctctc cacctggagc caagtcctcc tgccagcccg acccagagtc cagacaacct
1621 gacttgaca gagacgcccc tcgtcatcgc agggcaacct gcttaccgca gcttcagcaa
1681 ctccctgagc cagtcaccgt gtcccagaga gctgggtcca gacctctgc tggccagaca
1741 cctggaggaa gtagaacccg agatgccctg tgtcccccag ctctctgagc caacctgtgt
1801 gcccacacct gagccagaaa cctgggagca gatcctccgc cgaaatgtcc tccagcatgg
1861 ggcagctgca gcccccgtct cggccccac cagtggctat caggagtgtg tacatgcggt
1921 ggagcagggt ggcacccagg ccagtgcggt ggtgggcttg ggtcccccag gagaggctgg
1981 ttacaaggcc ttctcaagcc tgcctgccag cagtgtctgt tcccagaga aatgtgggtt
2041 tggggttagc agtggggaag aggggtataa gcctttccaa gacctcattc ctggctgccc
2101 tggggaccct gcccagtcct ctgtccctt gttcaccttt ggactggaca gggagccacc
2161 tcgcagtcag cagagctcac atctcccaag cagctcccca gagcacctgg gtctggagcc
2221 gggggaaaaag gtataggaca tgccaaagcc cccacttccc caggagcagg ccacagacct
2281 ccttgtggac agcctgggca gtggcattgt ctactcagcc cttacctgcc acctgtgcgg
2341 ccacctgaaa cagtgtcatg gccaggagga tgggtggccag acccctgtca tggccagtc
2401 ttgtgtggc tgctgtctgt gagacaggtc ctgcgccctt acaaccccc tgagggcccc
2461 agacccctct ccagggtggg ttccactgga ggccagtctg tgtccggcct cctgtggacc
2521 ctggggcatc tcagagaaga gtaaatcctc atcatccttc catcctgccc ctggcaatgc
2581 tcagagctca agccagacct ccaaaatcgt gaactttgtc tccgtgggac ccacatacat
2641 gaggtctct taggtgcatg tcctcttgtt gctgagtctg cagatgagga ctagggttta
2701 tccatgcctg ggaatgccca cctcctggaa ggcagccagg ctggcagatt tccaaaagac
2761 ttgaagaacc atggtatgaa ggtgattggc cccactgacg ttggcctaac actgggtctg
2821 agagactgga ccccgccag cattgggctg ggctcgccac atcccatgag agtagaggc
2881 actgggtcgc cgtgccccac ggcaggcccc tgcaggaaaa ctgaggccct tgggacacct
2941 gacttgtgaa cgagttgttg gctgtccct ccacagcttc tgcagcagac tgtccctgtt
3001 gtaactgccc aaggcatgtt ttgcccacca gatcatggcc cacgtggagg cccacctgcc
3061 tctgtctcac tgaactagaa gccgagccta gaaactaaca cagccatcaa gggaatgact
3121 tggcgccgct tgggaaatcg atgagaaatt gaacttcagg gaggtgggtc attgcctaga
3181 ggtgtctcatt catttaacag agcttccctt ggttgatgct ggaggcagaa tcccggtgtg
3241 caaggggtgt tcagttaaag ggagcaacag aggacatgaa aaattgctat gactaaagca
3301 gggacaattt gctgccaac acccatgccc agctgtatgg ctgggggctc ctctgtatga
3361 tggaaacccc agaataaata tgctcagcca cctgtggggc cgggcaatcc agacagcagg
3421 cataaggcac cagttaccct gcatgttggc ccagacctca ggtgtatagg aaggcgggaa
3481 ccttgggttg agtaatgtc gtctgtgtgt tttagtttca tcacctgtta tctgtgtttg
3541 ctgaggagag tggaacagaa ggggtggagt tttgtataaa taaagtttct ttgtctc

(2) INFORMATION FOR SEQ ID NO:2545:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3241 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2545:

```
1  ggatcctaata caagacccca gtgaacagaa ctgcacccctg ccaaggccttg gcagtttcca
61  tttcaatcac  tgtcttccca ccagtatctt caatttcttt taagacagat taatctagcc
121 acagtcata tagaacatag ccgatctgaa aaaaacattc ccaatatatta tgtatcttag
181 cataaaattc tgttttagtg tctaccttat actttgtttt gcacacatct ttttaagagga
241 agttaatttt ctgattttta gaaatgcaaa tgtggggcaa tgatgtatta acccaaagat
301 tcttcgtaat agaaaatgtt tttaaagggg ggaaacaggg atttttatta ttaaagata
361 aaagtaaaatt tattttttta gatataaggc attggaaaca tttagtttca cgatatgcca
421 ttattaggca ttctctatct gattgttaga aattattcat ttctcaaag acagacaata
481 aattgactgg ggacgcagtc ttgtactatg cactttcttt gccaaaggca aacgcagaac
541 gtttcagagc catgaggatg cttctgcatt tgagtttgct agctcttggg gctgcctacg
601 tgtatgccat ccccacagaa attcccacaa gtgcattggg gaaagagacc ttggcactgc
661 tttctactca tcgaactctg ctgatagcca atgaggtaat tttctttatg attcctacag
721 tctgtaaaagt gcataggtaa tcatttgtga tggttccctt actatatata gagatctggt
781 ataaataata agattctgag cacattagta catgggtgat aactacatca ccagcaaaaca
841 tctgtttaa agttatgaat gctgggtgct tgtaaaaatg attgtatttc ctttcctctc
901 cagactctga ggattcctgt tctgtacat aaaaatgtaa gttaaattat gattcagtaa
961 aatgatggca tgaataagta aatttcctgt ttttaagctg aaatcattag ttatcattgg
1021 aactatttta tttctatat tttgttttca tatgggtggc tgtgaatgtc tgtacttata
1081 aatatgagga atgacttttt atcaagtaga atccttttaa caagtggatt aggctctttg
1141 gtgatgttgt tagtttgctt cccaaagagc atcgtgtcag ggattctttc cagaaggatt
1201 ccacactgag tgagagggtg gtgctagtct ccgtgcagtt ctgactcttt ctcactctaa
1261 cgtgtttctg aaagtattag caactcagaa ttatatTTTT agaaccatga tcagtagaca
1321 ttaaaatata taacaaatgc cctatatata taatttctgc atacttaaatt aattatgact
1381 atatgatggt gttgtatgca tttgaatatg tcttggtcat attaaaatgt aaaatatata
1441 gttttattag tctaaataga ataaaactac cagctagaac tgtagaaca cattgatag
1501 agtttaatgt ataatgcatt acacttccaa aacatttttt tccagttaca taattaagtt
1561 atatccttta taaaactcct cagtaatcat ataagcttca tctacttttt gaaaatttta
1621 tcttaatatg tgggtggttg ttgcctagaa aacaaacaaa aaactctttg gagaagggaa
1681 ctcatgtaaa taccacaaaa caaagcctaa ctttgtggac caaaattggt ttaataatta
1741 ttttttaatt gatgaattaa aaagtatata tatttattgt gtacaatatg atgttttgaa
1801 gtaggtatac attgcagaat ggacaatgga ccaaattttt ataccttgct tgattattt
1861 gcatttttaa aattttcctc atttagcacc aactgtgcac tgaagaaatc tttcagggaa
1921 taggcacact ggagagtcaa actgtgcaag ggggtactgt ggaaagacta ttcaaaact
1981 tgtccttaatt aaagaaatac attgacggcc aaaaagtaag ttacacacat tcaatggaag
2041 ctatatattgt ctggctgtgc ctatttctat ggaattgaca gtttcttgta atacctattg
2101 tcattttttt tttttcacag aaaaagtgtg gagaagaaag acggagagta aaccaattcc
2161 tagactacct gcaagagttt cttggtgtaa tgaacaccga gtggataata gaaagttgag
2221 actaaactgg tttgttgtag ccaaagattt tggaggagaa ggacatttta ctgcagttag
2281 aatgagggcc aagaaagagt caggccttaa ttttcagtat aatttaactt cagagggaaa
2341 gtaaatatatt caggcatact gacactttgc cagaaagcat aaaattctta aaatatattt
2401 cagatatcag aatcattgaa gtattttcct ccaggcaaaa ttgatatact ttttcttat
2461 ttaacttaac attctgtaaa atgtctgtta acttaatagt atttatgaaa tggttaagaa
2521 tttggtaaat tagtatttat ttaatgttat gttgtgttct aataaaacaa aaatagacaa
2581 ctgttcaatt tgctgctggc ctctgtctta gcaattgaag ttagcacagt ccattgagta
2641 catgcccagt ttggaggaag ggtctgagca catgtggctg agcatcccca tttctctgga
2701 gaagtctcaa ggttgcaagg cacaccagag gtggaagtga tctagcagga cttagtggg
2761 atgtggggag caggacaca ggcaggaggt gaacctggtt ttctctctac agtatatcca
2821 gaacctggga tgggtcaggg taaatggtag ggaataaatg aatgaatgtg ctttccaaga
2881 ctgattgtag aactaaaatg agttgtaagg cgtcccctgg aagaagggca gtgtgggaac
2941 ctgtaactag gttcctgccc agcctgtgag aagaatttgg cagatcaatc tcattgccag
3001 tatagagagg aagccagaaa ccctctctgc caaggcctgc aggggttctt accccacctg
3061 accctgcacc ataacaaaag gaacagagag acactggtag ggcagtccca ttgaaaagac
3121 tgagttccgt attccgggg gcagggcagc accaggccgc acaacactcc attctgcctg
3181 cttatggcta tcagtagcat cactagagat tcttctgttt gagaaaactt ctcaaggatc
3241 c
```

(2) INFORMATION FOR SEQ ID NO:2546:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 816 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2546:

```

1 atgcactttc tttgccaaag gcaaacgcag aacgtttcag agccatgag atgcttctgc
61 atttgagttt gctagctctt ggagctgcct acgtgtatgc catccccaca gaaattccca
121 caagtgcatt ggtgaaagag accttggcac tgctttctac tcatcgaact ctgctgatag
181 ccaatgagac tctgaggatt cctgttctctg tacataaaaa tcaccaactg tgcactgaag
241 aaatctttca gggaaataggc acactggaga gtcaaactgt gcaagggggg actgtggaaa
301 gactattcaa aaacttgccc ttaataaaga aatacattga cggccaaaaa aaaaagtgtg
361 gagaagaaag acggagagta aaccaattcc tagactacct gcaagagttt cttggtgtaa
421 tgaacaccga gtggataata gaaagttgag actaaactgg tttgttgag ccaaagattt
481 tggaggagaa ggacatttta ctgcagttag aatgagggcc aagaaagagt caggccttaa
541 ttttcaatat aatttaactt cagagggaaa gtaaatattt caggcatact gacactttgc
601 cagaagcatc aaaattctta aaatatattt cagatatcag aatcattgaa gtattttctc
661 ccaggcaaaa ttgatatact tttttcttat ttaacttaac attctgtaaa atgtctgtta
721 acttaatagt atttatgaaa tggttaagaa tttggtaaat tagtatttat ttaatggtat
781 gttgtgttct aataaaacaa aaatagacaa ctgttc
  
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(2) INFORMATION FOR SEQ ID NO:2547:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4057 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2547:

```

1 ggatccta at caagacccca gtgaacagaa ctgcaccctg ccaaggcttg gcagtttcca
61 tttcaatcac tgtcttccca ccagtatttt caatttcttt taagacagat taatctagcc
121 acagtcata tagaacatag ccgatctgaa aaaaacattc ccaatattta tgtattttag
181 cataaaattc tgtttagtgg tctaccttat actttgtttt gcacacatct ttttaaggga
241 agtttaattt ctgattttta gaaatgcaaa tgtggggcaa tgatgtatta acccaaagat
301 tcttcgta at agaaaatgtt tttaaagggg ggaacacagg atttttatta ttaaaagata
361 aaagtaaat tattttttta gatataaggc attggaacaa tttagtttca cgatatgcca
421 ttattaggca ttctctatct gattgttaga aattattcat ttctcaaag acagacaata
481 aattgactgg ggacgcagtc ttgtactatg cactttcttt gccaaaggca aacgcagaac
541 gtttcagagc catgaggatg cttctgcatt tgagtttgct agctcttgga gctgcctacg
601 tgtatgccat cccacagaaa attcccacaa gtgcattggg gaaagagacc ttggcactgc
661 tttctactca tcgaactctg ctgatagcca atgaggtaat tttctttatg attcctacag
721 tctgtaaagt gcataggtaa tcatttgtga tggttccttt actatatata gagatctgtt
781 ataaataata agattctgag cacattagta catgggtgat aactacatca ccagcaaaaca
841 ttctgttaaa agttatgaat gctggtgtgc tgtaaaaatg attgtatttc ctttctctc
901 cagactctga ggattcctgt tctgtacat aaaaatgtaa gttaaattat gattcagtaa
961 aatgatggca tgaataagta aatttctctg ttttaagctg aaatcattag ttatcattgg
1021 aactatttaa ttttctatat tttgttttca tatgggtggc tgtgaatgtc tgtacttata
1081 aatatgagga atgacttttt atcaagtaga atccttttaa caagtggatt aggtcttttg
1141 gtgatgttgt tagtttgctt cccaaagagc atcgtgtcag ggattctttc cagaaggatt
1201 ccacactgag tgagaggtgc gtgctagtct ccgtgcagtt ctgactcttt ctactcttaa
1261 cgtgtttctg aaagtattag caactcagaa ttatatattt agaaccatga tcagtagaca
1321 ttaaaatata taacaaatgc cctatattaa taatttctgc atacttaaat aattatgact
1381 atatgatggt gttgtatgca tttgaatatg tcttggtcat attaaaatgt aaaatatata
1441 gttttattag tctaaataga ataaaactac cagctagaac tgtagaaaca cattgatatg
1501 agtttaattg ataatgcatt acacttccaa aacatttttt tccagttaca taattaagtt
1561 atatccttta taaaactcct cagtaatcat ataagcttca tctacttttt gaaaatttta
1621 tcttaatatg tgggtggttg ttgcctagaa aacaaacaaa aaactctttg gagaagggaa
1681 ctcagtataa taccacaaaa caaagcctaa ctttgtggac caaaattgtt ttaataatta
1741 ttttttaatt gatgaattaa aaagtatata tatttattgt gtacaatatg atgttttgaa
1801 gtatgtatac attgcagaat ggacaatgga ccaaattttt atacctgtgc ttgattattt
1861 gcatttttaa aattttcctc atttagcacc aactgtgcac tgaagaaatc tttcagggaa
1921 taggcacact ggagagtcaa actgtgcaag ggggtactgt ggaagacta ttcaaaaact
1981 tgtccttaat aaagaaatac attgacggcc aaaaagtaag ttacacacat tcaatggaag
2041 ctatatttgt ctggctgtgc ctatttctat ggaattgaca gtttctgtga atacctattg
  
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2101 tcattttttct tttttcacag aaaaagtgtg gagaagaaa acggagagta aaccaattcc
2161 tagactacct gcaagagttt ctgtgtgtaa tgaacaccga gtggataata gaaagtgtgag
2221 actaaactgg tttgttgacag ccaaagattt tggaggagaa ggacatttta ctgcagtgtgag
2281 aatgagggcc aagaagaggt caggccttaa ttttcagtat aatttaactt cagagggaaa
2341 gtaaatattt caggcatact gacactttgc cagaaagcat aaaattctta aaatatattt
2401 cagatatcag aatcattgaa gtattttcct ccaggcaaaa ttgatatact tttttcttat
2461 ttaacttaac attctgtaaa atgtctgtta acttaatagt atttatgaaa tggttaagaa
2521 tttgttaaat tagtatttat ttaatgttat gttgtgttct aataaaacaa aaatagacaa
2581 ctgttcaatt tgctgtctgc ctctgtctta gcaattgaag ttagcacagt ccattgagta
2641 catgcccagt ttggaggaag ggtctgagca catgtgctg agcatcccca tttctctgga
2701 gaagtctcaa ggttgcaagg cacaccagag gtggaagtga tctagcagga cttagtgggg
2761 atgtggggag cagggacaca ggcaggaggt gaacctggtt ttctctctac agtatatcca
2821 gaacctggga tgggtcaggg taaatggtag ggaataaatg aatgaatgtg ctttccaaga
2881 ctgattgtag aactaaaatg agttgttaagg cgtcccctgg aagaagggca gtgtgggaac
2941 ctgtaactag gttcctgccc agcctgtgag aagaatttgg cagatcaatc tcattgccag
3001 tatagagagg aagccagaaa cctctctctgc caaggcctgc aggggttctt accccacctg
3061 accctgcacc ataacaaaag gaacagagag aactgtgtg ggcagtccca ttagaaagac
3121 tgagtccgtt attcccgggg gcagggcagc accaggccgc acaacactcc attctgcctg
3181 cttatggcta tcagtagcat cactagagat tcttctgttt gagaaaactt ctcaaggatc
3241 c
1 atgcactttc tttgccaaag gcaaacgcag aacgtttcag agccatgagg atgcttctgc
61 atttgagttt gctagctctt ggagctgcct acgtgtatgc catccccaca gaaattccca
121 caagtgcatt ggtgaaagag acctggcac tgctttctac tcatcgaact ctgctgatag
181 ccaatgagac tctgaggatt cctgttccctg tacataaaaa tcaccaactg tgcactgaag
241 aaatctttca gggaataggt acactggaga gtcaaactgt gcaagggggg actgtggaaa
301 gactattcaa aaacttctcc ttaataaaga aatacattga cggccaaaaa aaaaagtgtg
361 gagaagaaa agcgagagta aaccaattcc tagactacct gcaagagttt cttggtgtaa
421 tgaacaccga gtggataata gaaagtgtg actaaactgg tttgttgacg ccaaagattt
481 tggaggagaa ggacatttta ctgcagtgtg aatgagggcc aagaaagagt caggccttaa
541 ttttcaatat aatttaactt cagagggaaa gtaaatattt caggcatact gacactttgc
601 cagaaagcat aaaattctta aaatatattt cagatatcag aatcattgaa gtattttcct
661 ccaggcaaaa ttgatatact tttttcttat ttaacttaac attctgtaaa atgtctgtta
721 acttaatagt atttatgaaa tggtaagaa tttggttaaat tagtatttat ttaatgttat
781 gttgtgttct aataaaacaa aaatagacaa ctgttc

(2) INFORMATION FOR SEQ ID NO:2548:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2024 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2548:

1 tagatgctgg ggttgacgac acgagcatag acacgacaga cagggtcctc gccatctttct
61 gttgagtact ggtcggaaca agaggatcgt ctgtagacag gatatgatca tcgtggcgca
121 tgtattactc atccttttgg gggccactga gatactgcaa gctgacttac ttctgatga
181 aaagatttca cttctccac ctgtcaattt caccattaaa gttactggtt tggctcaagt
241 tcttttacaa tggaaaccaa atcctgatca agagcaaagg aatgttaatc tagaatatca
301 agtgaataa aacgctccaa aagaagatga ctatgaaacc agaactactg aaagcaaatg
361 tgtaaccatc ctccacaaag gcttttcagc aagtgtgcgg accatcctgc agaacgacca
421 ctactactg gccagcagct gggcttctgc tgaacttcat gcccaccag ggtctcctgg
481 aacctcaatt gtgaatttaa cttgcaccac aaacactaca gaagacaatt attcacgttt
541 aaggtcatac caagtttccc ttcactgcac ctggcttgtt ggcacagatg cccctgagga
601 cagcagtat tttctctact ataggtatgg ctcttgact ctcttgact gaagaatgcc aagaatacag
661 caaagacaca ctggggagaa atatcgcatg ctggtttccc aggactttta tctctagcaa
721 agggcgtgac tggcttgcgg tgcctgttaa cggtccagc aagcactctg ctatcaggcc
781 ctttgatcag ctgtttgcc ttcacgccat tgatcaaata aatcctccac tgaatgtcac
841 agcagagatt gaaggaactc gtctctctat ccaatgggag aaaccagtgt ctgcttttcc
901 aatccattgc tttgattatg aagtaaaaa acacaatata aggaatggat atttgagat
961 agaaaaattg atgaccaatg cattcatctc aataattgat gatcttctta agtaccgatgt
1021 tcaagtga gacagcagtg gctccatgtg cagagaggca gggctctgga gtgagtggag
1081 ccaacctatt tatgtgggaa atgatgaaca caagccctg agagagtgtt ttgtcattgt

1141 gattatggca accatctgct tcatcttggt aattctctcg cttatctgta aaatatgtca
 1201 tttatggatc aagttgtttc caccaattcc agcaccaaaa agtaatatca aagatctctt
 1261 tgtaaccact aactatgaga aagctggaat ttaaattcaa gcatgtttta acttttgggt
 1321 taaggctactt ggggtgtacct ggcagtggtg taagctcttt acattaatta attaactctc
 1381 taggtactgt tatcttcatt ttataaaciaa ggcagctgaa gttgagagaa ataagtaacc
 1441 tgtcctaggt cacacaatta ggaaatgaca gatctggcag tctatttcca ggcagctcat
 1501 ttccacgagg tcatgagtg c gaaagaggga ctaggggaaag aatgattaac tccagggagc
 1561 tgacttttct agtgtgctta cctgttttgc atctctcaag gatgtgccat gaagctgtag
 1621 ccaggtggaa ttgtaccaca gccctgacat gaacacctga tggcagctgc tgggttggag
 1681 cctagacaaa aacatgaaga accatggctg ctgcctgagc ccatcgtgct gtaattatag
 1741 aaaaccttct aagggaagaa tatgctgata ttttccagat aagtaccctt ttataaaaa
 1801 tcctccaagt tagccctcga ttttccatgt aaggaaacag aggccttgag ataattgtctg
 1861 tctcctaagg gacaaagcca ggacttgatc ctgtcttaaa aatgcaaaat gtagtacttc
 1921 ttccatcaaa ggtagacatg cactaaggga cagggttttg cttggtatca gaatacattt
 1981 ttaaagctg tgtaagaatt gaacgggctg tactaggggg tata

(2) INFORMATION FOR SEQ ID NO:2549:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 931 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2549:

1 gatctttcta agtacgatgt tcaagtgaga gcagcagtga gctccatgtg cagagaggca
 61 gggctctgga gtgagtggag ccaacctatt tatgtgggaa atgatgaaca caagcccttg
 121 agagagtgggt ttgtcattgt gattatggca accatctgct tcatcttggt aattctctcg
 181 cttatctgta aaatatgtca tttatggatc aagttgtttc caccaattcc agcaccaaaa
 241 agtaatatca aagatctctt tgtaaccact aactatgagg tctctctgat tttcatatac
 301 atcttagatt cggctgacaa ttttctacaa aaaaagaaag ctgggtccag tgagacggaa
 361 attgaagtca tctgttatat agagaagcct ggagtggaga ccctggagga ttctgtgttt
 421 tgactgtcac tttggcatcc tctgatgaac tcacacatgc ctacgtgcct cagtgaanaa
 481 aacagggatg ctggctcttg gctaagaggt gttcagaatt taggcaacac tcaatttacc
 541 tgcgaagcaa tacaccacga cacaccagtc ttgtatctct taaaagtatg gatgcttcat
 601 ccaaatcgcc tcacctacag cagggaagtt gactcatcca agcattttgc catgtttttt
 661 ctcccatgac cgtacagggt agcacctcct cacctgcca tctttgcaat ttgcttgact
 721 cactcagac ttttcattca caacagacag cttttaaggc taacgtccag ctgtatttac
 781 ttctggctgt gcccgtttg ctgtttaagc tgccaattgt agcactcagc taccatctga
 841 ggaagaaagc attttgcatc agcctggagt gaacctgaa cttggattca agactgtctt
 901 ttctatagca agtgagagcc acaaatctct c

(2) INFORMATION FOR SEQ ID NO:2550:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1327 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2550:

1 ccgctgcttc tcatcgcatg gccaccgcat ttctcaggcc aggcacattg agcattgggtc
 61 ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
 121 cggctcctgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacaggc
 181 tacagattgt tttagattga agtttctctg catgttcaat catctttaaa tctcatagt
 241 aaaaaggata tgatcatcgt ggcgcatgta ttactcatcc ttttgggggc cactgagata
 301 ctgcaagctg acttacttcc tgatgaaaag atttcaattc tcccacctgt caatttcacc
 361 attaaagtta ctggttttgc tcaagttctt ttacaatgga aaccaaatcc tgatcaagag
 421 caaaggaatg ttaattctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
 481 gaaaccagaa tcaactgaaa caaatgtgta accatcctcc acaaaaggctt ttcagcaagt
 541 gtgcggacca tcttcgagaa cgaccactca ctactggcca gcagctgggc ttctgctgaa
 601 ctcatgccc caccagggtc tcttgaacc tcaattgtga atttaacttg caccacaaac
 661 actacagaag acaattattc acgtttaagc tcataccaag tttcccttca ctgcacctg
 721 ctgtttggca cagatgcccc tgaggacacg cagtatttct tctactatag gtatggctct
 781 tgagctgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat cgcagtctgg
 841 ttcccagga cttttatcct cagcaaaagg cgtgactggc ttctgggtgt tgtaaacggc
 901 tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca cgccattgat

961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
 1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaatacac
 1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
 1141 attgatgatc tttctaagta cgatgttcaa gtgagagcag cagtgaagctc catgtgcaga
 1201 gaggcagggc tctggagtga gtggagccaa cctatttatg tggggttctc aagataaagg
 1261 agataaacatc cagctttcct gccccacacc gtatctgaaa taaaaacaac agcaggagata
 1321 gcagatt

(2) INFORMATION FOR SEQ ID NO:2551:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1664 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2551:

1 ccgctgcttc tcacgcacat gccaccgcat ttctcaggcc aggcacattg agcattggctc
 61 ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
 121 cggctcctgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtacagagcc
 181 tacagattgt tttagattga agtttctgt catgttccat catctttaaa tctcatagt
 241 aaaaaggata tgatcatcgt ggcgcacatg ttactcatcc ttttgggggc cactgagata
 301 ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt caatttcacc
 361 attaaagtta ctggtttggc tcaagttctt ttacaatgga aaccaaacc tgatcaagag
 421 caaaggaatg ttaattctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
 481 gaaaccagaa tcactgaaa ccaatgtgta accatcctcc acaaaggctt ttcagcaagt
 541 gtgcggacca tcctgcagaa cgaccactca ctactggcca gcagctgggc tttctgtgaa
 601 cttcatgccc caccagggtc tcttgaacc tcaattgtga atttaacttg caccacaaac
 661 actacagaag acaattatc acgtttaagg tcataccaag tttcccttca ctgcacctgg
 721 cttgttgcca cagatgcccc tgaggacacg cagtatttct tctactatag gtatggctct
 781 tggactgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat cgcatgctgg
 841 tttcccagga cttttatcct cagcaaaggc cgtgactggc tttcgggtgt ttttaacggc
 901 tccagcaagc actctgctat caggccctt gatcagctgt ttgcccttca cgcattgat
 961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
 1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaatacac
 1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
 1141 attgatgatc tttctaagta cgatgttcaa gtgagagcag cagtgaagctc catgtgcaga
 1201 gaggcagggc tctggagtga gtggagccaa cctatttatg tgggtaagta gcttatgttt
 1261 attttacatt ggcagccttc cttgtgatca aaaaaggtaa tcccagaaac gtacccttc
 1321 actcgtgggt cttaaaatgg tttcatatct ctattgtgac taattttctc tccgtctact
 1381 gccttttcaa tcagggaatag atttgccatg aagccagtga agtttttaag tgtctaggct
 1441 tctcattagt gccaaactct ctagacctgg tgcctgtttt ttttccaagt tttgtttcta
 1501 cttctatcca ttttttaaat taaactttt attttgaaat aattatcaca ctacaagct
 1561 gtgggaagaa ataatagaga tctgtgtct ctttcatcca gttttctca agggtaacat
 1621 cttacaaaac tatagtacaa tagtgaata gaattttgg tgtt

(2) INFORMATION FOR SEQ ID NO:2552:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1998 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2552:

1 ccgctgcttc tcacgcacat gccaccgcat ttctcaggcc aggcacattg agcattggctc
 61 ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
 121 cggctcctgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtacagagcc
 181 tacagattgt tttagattga agtttctgt catgttccat catctttaaa tctcatagt
 241 aaaaaggata tgatcatcgt ggcgcacatg ttactcatcc ttttgggggc cactgagata
 301 ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt caatttcacc
 361 attaaagtta ctggtttggc tcaagttctt ttacaatgga aaccaaacc tgatcaagag
 421 caaaggaatg ttaattctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
 481 gaaaccagaa tcactgaaa ccaatgtgta accatcctcc acaaaggctt ttcagcaagt
 541 gtgcggacca tcctgcagaa cgaccactca ctactggcca gcagctgggc tttctgtgaa
 601 cttcatgccc caccagggtc tcttgaacc tcaattgtga atttaacttg caccacaaac
 661 actacagaag acaattatc acgtttaagg tcataccaag tttcccttca ctgcacctgg

721 cttgttgcca cagatgcccc tgaggacacg cagtattttc tctactatag gtatggctct
781 tggactgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat cgcattgctgg
841 tttcccagga cttttatcct cagcaaaggg cgtgactggc tttcgggtgct tgtaaacggc
901 tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca cgcattgat
961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaaatacac
1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
1141 attgatgac tttctaagta cgatgttcaa gtgagagcag cagtgaagctc catgtgcaga
1201 gaggcagggc tctggagtga gtggagccaa cctatttatg tgggaaatga tgaacacaag
1261 cccttgagag agtggtttgt cattgtgatt atggcaacca tctgcttcat cttgttaatt
1321 ctctcgcta tctgtaaaat atgtcattta tggatcaagt tgtttccacc aattccagca
1381 ccaaaaagta atataaaaga tctctttgta accactaact atgagaaagc tgggtccagt
1441 gagacggaaa ttgaagtcac ctgttatata gagaagcctg gatttgagac cctggaggat
1501 tctgtgtttt gactgtcact ttggcatcct ctgatgaact cacacatgcc tcagtgcctc
1561 agtgaagaag acagggatgc tggctcttgg ctaagagggtg ttcagaattt aggcaacact
1621 caatttacct gcgaagcaat acaccagac acaccagtct tctatctctt aaagtattgg
1681 atgcttcac ccaatcgctt cactacagc agggaagtgt actcatccaa gcattttgcc
1741 atgttttttc tccccatgcc gtacagggtg gcacctcttc acctgccaat ctttgcaatt
1801 tgcctgactc acctcagact ttcatccaca acagacagct ttaaggcta acgtccagct
1861 gtatttactt ctggctgtgc cgtttggctg tttaaagctgc caattgtage actcagctac
1921 catctgagga agaaagcatt ttgcatcagc ctggagtga ccatgaactt ggattcaaga
1981 ctgtcttttc tatagcaa

(2) INFORMATION FOR SEQ ID NO:2553:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1405 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2553:

1 gtcttttgaa aggatctgcc gctgcttctc atcgcatggc caccgcattt ctccaggccag
61 gcacattgag cattggctcct gtgcctgacg ctatgctaga tgctgggggtt gcagccacga
121 gcatagacac gacagacacg gtcctcgcca tcttctgttg agtactggtc ggaacaagag
181 gatcgctctg agacaggata tgatcatcgt ggcgcatgta ttactcatcc ttttgggggc
241 cactgagata ctgcaagctg acttacttcc tgatgaaaag atttcaactt tccccactgt
301 caatttcacc attaaagtta ctgggtttggc tcaagttctt ttacaatgga aaccaaattc
361 tgatcaagag caaaggaatg ttaattctaga atatcaagtg aaaataaacg ctccaaaaga
421 agatgactat gaaaccagaa tcactgaaag caaatgtgta accatcctcc acaaaggctt
481 ttcagcaagt gtgcggacca tcctgcagaa cgaccactca ctactggcca gcagctgggc
541 ttctgctgaa ctctatgccc caccagggtc tcctggaacc tcaattgtga atttaacttg
601 caccacaac actacagaag acaattattc acgtttaagg tcataccaag tttcccttca
661 ctgcacctgg cttgtttgga cagatgcccc tgaggacacg cagtattttc tctactatag
721 gtatggctct tggactgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat
781 cgcattgctg tttcccagga cttttatcct cagcaaaggg cgtgactggc ttgcgggtgct
841 tgtaaacggc tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca
901 cgcattgat caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct
961 ctctatccaa tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt
1021 aaaaatacac aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt
1081 catctcaata attgatgac tttctaagta cgatgttcaa gtgagagcag cagtgaagctc
1141 catgtgcaga gaggcagggc tctggagtga gtggagccaa cctatttatg tgggtaagta
1201 gcttatgttt attttacatt ggcagccttc cttgtgatca aaaaaggtaa tcccagaac
1261 gtaccggttc actcgtgggt cttaaaatgg tttcatatct ctattgtgac taattttctc
1321 tcggtctact gccttttcaa tcaggaatag atttgccatg aagccagtga agtttttaag
1381 tgtctaggct tctcattagc gccac

(2) INFORMATION FOR SEQ ID NO:2554:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2006 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2554:

1 cggctcctgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacagga

61 tatgatcatc gtggcgcatg tattactcat ctttttggg gccactgaga tactgcaagc
121 tgacttactt cctgatgaaa agatttctact tctcccacct gtcaatttca ccattaaagt
181 tactgggttg gctcaagttc ttttacaatg gaaaccaa at cctgatcaag agcaaaggaa
241 tgtaaatacga gaatatcaag tgaataataa cgctccaaaa gaagatgact atgaaaccag
301 aatcactgaa agcaaatgtg taaccatcct ccacaaaggc ttttcagcaa gtgtgaggac
361 catcctgcag aacgaccact cactactggc cagcagctgg gcttctgctg aacttcatgc
421 cccaccaggg tctcctggaa cctcagttgt gaatttaact tgcaccacaa acactacaga
481 agacaattat tcacgtttaa ggatcatac agtttccctt cactgcacct ggcttgttgg
541 cacagatgcc cctgaggaca cgcagtatct tctctactat aggtatggct ctggactga
601 agaatgcaa gaatacagca aagacacact ggggagaa at atcgcatgct gggttcccag
661 gacttttata ctcagcaaa ggcgtgactg gcttgcggtg cttgttaacg gctccagcaa
721 gcaactctgct atcaggccct ttgatcagct gtttgccctt cagccatttg atcaataaaa
781 tcctccactg aatgtcacag cagagattga aggaactcgt ctctctatcc aatgggagaa
841 accagtgtct gcttttccaa tccattgctt tgattatgaa gtaaaaaaac acaatacaag
901 gaatggatat ttgcagatag aaaaattgat gaccaatgca ttcacttcaa taattgatga
961 tcttttctaag tcgatgttc aagtgaagc agcagtgagc tccatgtgca gagaggcagg
1021 gctctggagt gagtggagcc aacctattta tgtgggaa at gatgaacaca agcccttgag
1081 agagtgttt gtcattgtga ttatggcaac catctgcttc atcttgttaa ttctctgct
1141 tatctgtaaa atatgtcatt tatggatcaa gttgtttcca ccaattccag caccaaaaag
1201 taatatcaaa gatctctttg taaccactaa ctatgagaaa gctgggtcca gtgagacgga
1261 aattgaagtc atctgttata tagagaagcc tggagttgag accctggagg attctgtgtt
1321 ttgactgtca ctttggcatc ctctgatgaa ctcacacatg cctcagtgcc tcagtgaaaa
1381 gaacagggat gctggctctt ggctaagagg tgttcagaat ttaggcaaca ctcaatttac
1441 ctgcgaagca atacaccag acacaccagt cttgtatctc ttaaaagtat ggatgcttca
1501 tccaaatcgc ctcacctaca gcagggaagt tgactcatcc aagcattttg ccatgttttt
1561 tctcccctatg ccgtacaggg tagcacctcc tcacctgcca atctttgcaa tttgcttgac
1621 tcacctcaga cttttcattc acaacagaca gcttttaagg ctaacgtcca gctgtattta
1681 ctctggtctg tgcccgtttg gctgtttaag ctgccaattg tagcactcag ctaccatctg
1741 aggaagaaag cattttgcat cagcctggag tgaatcatga acttggttc aagactgtct
1801 tttctatagc aagtgaagc cacaatttcc tcaccccctt acattctaga atgatctttt
1861 tctaggtaga ttgtgtatgt gtgtgtatga gagagagaga gagagagaga gagagagaga
1921 gagaaattat ctcaagctcc agaggcctga tccaggatac atcatttgaa accaactaat
1981 ttaaaagcat aatagagcta atatat

(2) INFORMATION FOR SEQ ID NO:2555:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11355 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2555:

1 tagatgctgg ggttgcagcc acgagcatag acacgacaga cagggtcctc gccatcttct
61 gttgagttact ggtcggaaca agaggatcgt ctgtagacag gatattgatca tctgtggcga
121 tgtattactc atcctttttg gggccactga gatactgcaa gctgacttac ttctctgatga
181 aaagatttca cttctccac ctgtcaattt caccattaaa gttactggtt tggctcaagt
241 tcttttcaaa tggaaaccaa atcctgatca agagcaaaagg aatgttaatc tagaatatca
301 agtgaataa aacgctccaa aagaagatga ctatgaaacc agaactactg aaagcaaatg
361 tgtaaccatc ctcacaaaag gcttttcagc aagtgtgcgg accatcctgc agaacgacca
421 ctcactactg gccagcagct gggcttctgc tgaacttcat gccccaccag ggtctcctgg
481 aacctcaatt gtgaatttaa cttgcaccac aaacactaca gaagacaatt attcacgttt
541 aagggtcatc caagtttccc ttcactgcac ctggcttgtt ggcacagatg cccctgagga
601 cagcagtat tttctctact ataggatggt ctcttggact gaagaatgcc aagaatacag
661 caaagacaca ctggggagaa atatcgcatg ctggtttccc aggaacttta tctcagcaa
721 agggcgtgac tggcttgcgg tgcctgttaa cggctccagc aagcactctg ctatcaggcc
781 ctttgatcag ctgtttgccc ttcacgccat tgatcaataa aatcctccac tgaatgtcac
841 agcagagatt gaaggaaact gtctctctat ccaatgggag aaaccagtgt ctgcttttcc
901 aatccattgc tttgattatg aagtaaaaa acacaataca aggaatggat atttgcatg
961 agaaaaattg atgaccaatg cattcatctc aataattgat gatctttcta agtacgatgt
1021 tcaagtgaga gcagcagtg gctccatgtg cagagaggca gggctctgga gtgagtgagg
1081 ccaacctatt tatgtgggaa atgatgaaca caagcccttg agagagtggg ttgtcattgt
1141 gattatggca accatctgct tcatcttgtt aattctctcg cttatctgta aaatatgtca
1201 tttatggatc aagttgtttc caccaattcc agcaccacaaa agtaatatca aagatctctt

1261 tgtaaccact aactatgaga aagctggaat ttaaattcaa gcatgtttta acttttgggt
1321 taaggtaactt ggggtgtacct ggcagtggtg taagctcttt acattaatta attaaactctc
1381 taggtactgt tatcttcatt ttataaaca ggcagctgaa gttgagagaa ataagtaacc
1441 tgcctaggt cacacaatta ggaatgaca gatctggcag tctatttcca ggcagctctat
1501 ttccacgagg tcatgagtgc gaaagagga ctaggggaag aatgattaac tccagggagc
1561 tgacttttct agtgtgctta cctgttttgc atctctcaag gatgtgccat gaagctgtag
1621 ccaggtggaa ttgtaccaca gccctgacat gaacacctga tggcagctgc tgggttggag
1681 cctagacaaa aacatgaaga accatggctg ctgcctgagc ccatcgctgc gtaattatag
1741 aaaaccttct aaggggaagaa tatgctgata tttttcagat aagtaccctt ttataaaaaa
1801 tcctccaagt tagccctcga ttttccatgt aaggaaacag aggcttttag ataatgtctg
1861 tctcttaagg gacaaagcca ggacttgatc ctgtcttaaa aatgcaaaat gtagtacttc
1921 ttccatcaaa ggtagacatg cactaaggga caggttttgg ctgggtatca gaatacattt
1981 ttaaaagctg tgtaagaatt gaacgggctg tactaggggg tata
1 gatctttcta agtacgatgt tcaagtga gacagctga gctccatgtg cagagaggca
61 gggctctgga gtgagtggag ccaacctatt tatgtgggaa atgatgaaca caagcccttg
121 agagagtggg ttgtcattgt gattatggca accatctgtc tcatcttctt aattctctcg
181 cttatctgta aaatatgtca tttatggatc aagttgttcc caccaattcc agcaccaaaa
241 agtaatatca aagatctctt tgtaaccact aactatgagg tctctctgcat tttcatatac
301 atcttagatt cggctgacaa ttttctacaa aaaaagaaag ctgggtccag tgagacggaa
361 attgaagtc tctgttatat agagaagcct ggagttgaga ccctggagga ttctgtgttt
421 tgactgtcac ttgtgcctcc tctgtgaac tcacacatgc ctgagtgcc tagtgaaaag
481 aacagggatg ctggctcttg gctaagaggt gttcagaatt taggcaacac tcaatttacc
541 tgccaagcaa tacaccaga cacaccagtc ttgtatctct taaaagtatg gatgcttcat
601 ccaaactgcc tcacctacag cagggaagtt gactcatcca agcattttgc catgtttttt
661 ctccccatgc cgtacagggt agcacctcct cactgcca tctttgcaat ttgcttgact
721 cactctagac ttttcattca caacagacag cttttaaggc taacgtccag ctgtatttac
781 ttctggctgt gcccgtttgg ctgtttaagc tgccaattgt agcactcagc taccatctga
841 ggaagaaagc attttgcac agcctggagt gaacctgaa cttggattca agactgtctt
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1 ccgtgcttc tcactgcctg gccaccgcat ttctcaggcc aggcacattg agcattggtc
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1861 tctaggtaga ttgtgtatgt gtgtgtatga gagagagaga gagagagaga
1921 gagaaattat ctcaagctcc agaggcctga tccaggatac atcatttgaa accaactaat
1981 ttaaaagcat aatagagcta atatat

(2) INFORMATION FOR SEQ ID NO:2556:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5191 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2556:

1 gaattcagta acccaggcat tattttatcc tcaagtctta ggttggttgg agaaagataa
61 caaaaagaaa catgattgtg cagaaacaga caaacctttt tggaaagcat ttgaaaatgg
121 cattccccct ccacagtgtg ttcacagtgt gggcaaatc actgctctgt cgtactttct
181 gaaaaatgaag aactgttaca ccaaggtgaa ttatttataa attatgtact tgcccagaag
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301 aagacctttc aagaaaggtc ttggtattct ttcttcagga cactaggaca taaagccacc

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 421 gaggtcagac ttggtgtcct tggataaaga gcatgaagca acagtggctg aaccagagt
 481 ggaaccaga tgctctttcc actaagcata caactttcca ttagataaca cctccctccc
 541 accccaacca agcagctcca gtgcaccact ttctggagca taaacatacc ttaactttac
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 1981 cagacaattc cactccttgt agtatttcat tgacaagcct cagatttgtc attaatctct
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 4021 aacttattaa cctatttatt atttatgtat ttatttaagc atcaaatatt tgtgcaagaa

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 4261 ttttttagtat aagtacatta ttgtttatct gaaatTTtaa ttgaactaac aatcctagtt
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 4621 tgttgtcaaa gtaatcaagt gttgtcttt ttttagttt tagcttattg ggattctctt
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 4861 tcttgctaata aagtctgtct tcagatttcg attaacgggt ttgtatgtct gtgcacttta
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 5101 tttcagtgga taaattttat aacaaattag acacagttga aaataaaatt agaaaactag
 5161 aaaatagaac aaaagaaact tctggaattc a

(2) INFORMATION FOR SEQ ID NO:2557:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2007 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2557:

1 tattcatcaa gtgccctcta gctgttaagt cactctgac tctgactgca gctcctactg
 61 ttggacacac ctggccggtg cttcagtttag atcaaacatc tgctgaaact gaagaggaca
 121 tgtcaaatat tacagatcca cagatgtggg attttgatga tctaaatttc actggcatgc
 181 cacctgcaga tgaagattac agcccctgta tgctagaaac tgagacactc aacaagtatg
 241 ttgtgatcat cgctatgcc ctagtgttcc tgctgagcct gctgggaaac tccctgggtga
 301 tgctgggtcat cttatacage agggctggcc gctccgtcac tgatgtctac ctgctgaacc
 361 tggccttggc cgacctactc tttgccctga ccttgcccat ctgggcccgc tccaaggtga
 421 atggctggat ttttggcaca ttctgtgca aggtggcttc actcctgaag gaagtcaact
 481 tctacagtgg catcctgctg ttggcctgca tcagtgtgga ccgttacctg gccattgtcc
 541 atgccacacg cacactgacc cagaagcgtc acttggtcaa gtttgtttgt cttggctgct
 601 ggggactgtc tatgaatctg tccctgccc tcttctttt ccgccaggct taccatccaa
 661 acaattccag tccagtttgc tatgaggtcc tgggaaatga cacagcaaaa tggcggatgg
 721 tgttgaggat cctgcctcac acctttggct tcatcgtgcc gctgtttgtc atgctgttct
 781 gctatggatt caccctgctg aactgttta aggccacat ggggcagaag caccgagcca
 841 tgagggtcat ctttgcctgc gtccatctct tctgtctttg ctggctgccc tacaacctgg
 901 tctgtctggc agacaccctc atgaggacc aggtgatcca ggagagctgt gaggcccgca
 961 acaacatcgg ccggccctg gatgccactg agattctggg atttctccat agctgcctca
 1021 accccatcat ctacgccttc atcgccaaa attttcgcca tggattcctc aagatcctgg
 1081 ctatgcatgg cctggtcagc aaggagtctt tggcacgtca tctgtttacc tctacactt
 1141 ctctgtctgt caatgtctct tccaacctct gaaaaccatc gatgaaggaa tatctcttct
 1201 cagaaggaaa gaataaccac caccctgagg ttgtgtgtgg aaggtgatct ggctctggac
 1261 aggcactatc tgggttttgg ggggacgcta taggatgtgg ggaagttagg aactggtgtc
 1321 ttcaggggcc acaccaacct tctgaggagc tgttgaggta cctccaagga ccggcctttg
 1381 cacctccatg gaaacgaagc accatcatte ccgttgaaag tcacatcttt aaccactaa
 1441 ctggctaatt agcatggcca catctgagcc ccgaatctga cattagatga gagaacaggg
 1501 ctgaagctgt gtccctcatga gggctggatg ctctcgttga cctcacagg agcatctcct
 1561 caactctgag tgttaagcgt tgagccacca agctgggtgc tctgtgtgct ctgatccgag
 1621 ctcaaggggg tggttttccc atctcagggt tgttgaggtg tctgtgtgag acattgaggc
 1681 aggcactgcc aaaacatcaa cctgccagct ggccttgtga ggagctggaa acacatgttc
 1741 cccttggggg tggtggatga aaaaagagaa agagggtttg gaagccagat ctatgccaca
 1801 agaaccctct ttaccccat gaccaacatc gcagacacat gtgctggcca cctgctgagc
 1861 ccaagtggga acgagacaag cagcccttag ccttccccct ctgcagcttc caggctggcg
 1921 tgcagcatca gcatccctag aaagccatgt gcagccacca gtccattggg caggcagatg
 1981 ttcctaataa agcttctgtt ccgtgct

(2) INFORMATION FOR SEQ ID NO:2558:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1750 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2558:

```
1 cctacaggtg aaaagcccag cgacccagtc aggatttaag tttacctcaa aaatggaaga
61 ttttaacatg gagagtgaac gctttgaaga tttctgaaa ggtgaagatc ttagtaatta
121 cagttacagc tctaccctgc ccccttttct actagatgcc gcccatgtg aaccagaatc
181 cctggaaatc aacaagtatt ttgtggatcat tatctatgcc ctggtattcc tgctgagcct
241 gctgggaaac tcctcctgta tgctggatcat cttatacagc agggtcggcc gctccgtcac
301 tgatgtctac ctgctgaacc tagccttggc cgacctactc tttgccctga ccttgcccat
361 ctggggccgc tcgaaggatg atggctggat ttttggcaca ttcctgtgca aggtggcttc
421 actcctgaag gaagtcaact tctatagtgg catcctgcta ctggcctgca tcagtgtgga
481 ccgttacctg gccattgtcc atgccacacg cacactgacc cagaagcgct acttgggtcaa
541 attcatatgt ctacagatct ggggtctgtc cttgctcctg gccctgcctg tcttactttt
601 ccgaaggacc gtctactcat ccaatgttag ccagcctgc tatgaggaca tgggcaacaa
661 tacagcaaac tggcggatgc tgttacggat cctgcccag tcctttggct tcatcgtgcc
721 actgctgac atgctgttct gctacggatt caccctgcgt acgctgttta aggccacat
781 ggggcagaag caccgggcca tgcgggtcat ctttgcctgc gtcctcatct tctgtctttg
841 ctggctgccc tacaacctgg tcctgctggc agacacctc atgaggacct aggtgatcca
901 ggagacctgt gagcgccgca atcacatcga ccgggctctg gatgccaccg agattctggg
961 catccttcac agctgcctca acccctcat ctacgccttc attggccaga agtttcgcca
1021 tggactctc aagattctag ctatacatgg cttgatcagc aaggactccc tgcccaaaga
1081 cagcaggcct tcctttgttg gctcttcttc agggcacact tccactactc tctaagacct
1141 cctgcctaag tgcagccccc tggggttcct cccttctctt cacagtcaca ttccaagcct
1201 catgtccact ggttcttctt ggtctcagtg tcaatgcagc ccccatgtg gtcacaggaa
1261 gcagaggagg caagcttctt actagtcttc cttgcatggg ttagaaagct tgccctgggt
1321 cctcaccctc tggcataatt actatgtcat ttgctggagc tctgcccac cgtcccctga
1381 gccatggca ctctatgttc taagaagtga aaatctacac tccagtgaga cagctctgca
1441 tactcattag gatggctagt atcaaaagaa aaaaaatcag gctggccaac gggatgaaac
1501 cctgtctcta ctaaaaatac aaaaaaaaaa aaaaaatta gccgggcgtg gtggtgagtg
1561 cctgtaatca cagctacttg ggaggtgag atgggagaat cacttgaacc cgggaggcag
1621 aggttgagtg gagccgagat tgtgccctc cactccagcc tgagcgacag tgagactctg
1681 tctcagcca tgaagatgta gaggagaaac tggaaactct gagcgttgct gggggggatt
1741 gtaaaatggt
```

(2) INFORMATION FOR SEQ ID NO:2559:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1807 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2559:

```
1 ggatccaagt aggattgagt gtcctgtagt tattatccac agggaacatt ctacaaagtt
61 ttgggagact gtaatgtcat gggaaatgca agaatatgtg tccagcatgg aagggaatca
121 gtatggaagt cttttgataa attgtggcat ttatcactaa cattgcctca aaactttaga
181 ctacctgcca tatacaaatt agaggtgaaa attacttcca tgtaatatat aagccaacac
241 aaagaatcct atcccagttt ctgggatgga taggcaagaa tctgggtaag gtttattgtg
301 caataatcct cttctctctt ctataggcca ggatttaagt ttacctcaaa aatggaaaat
361 tttggctggg aaaattacat gtgggaagac atcttcagtg gagattttag taattacagt
421 ttcagctatg accctacccc ttttctacta gattctgccc catgttggcc agaatcccta
481 gaaatcaatt atgttttgat catcatctat gccctgatgt ttctactgaa cgtgatgtga
541 aactccctgc cgatgctggt catcttattc agctgagtea gccactgtca ccgatgtcta
601 cctgctgacc ctggccttgg ccgacctgtt cttttccctg acattgccca tcttggctgc
661 ctccaagatg aatggctgga tttttggcac aatctgtgcc aggtgggtca gtcctgaag
721 gaagtcaact tctacggtgg tattctacta ctggcctgcc gcagcatgga ctgttacctg
781 gccattgtcc atgccacacg cacactgacc cagcagcgcc acttgggtcaa gttcatatgt
841 ctgggtttgt ggaacctgtt cctgttactg tccctacgca tcttgctttt ccgaaggacc
901 tcttaccatc ccaatgttag ccagctctgc tatgaggaca tgggcaacaa tacagcaaac
961 tgggtgagtg tgttacggat cctgcccag tcctttggct tcatcgtgcc gctgcgata
1021 tgctgttctg ctacagattc accctgcata cgctgtttta ggcccatatg gggcagaagc
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1081 actggaccat gtgggtcatc tttgctgttg tcctcatttt cctgctctgc tggctgccct
1141 acaacctggg cctgctggca gacaccctca tgggaaccca gatgaccaat gagacctgtg
1201 agcgccgcaa cgacatcaac caggccctgg atgccactga gattctgggc atccttcaca
1261 gctacctcaa tccccctatc tacgacctca ttggccagaa gttttgccat ggacttctca
1321 agattatagc catacacggc ttgatcagca aggactccct gcccaaagac agcaggccctt
1381 cctttgtttg ctcttcttca gggcacactt ccactactct ctaagacctc ttgctaagt
1441 gcagtcctgt ggggttcttc ctttctcttc acagtcacat tccaagcttc atgtccacta
1501 gctcttcttg gtctcagtgt cagtgcagcc cccactgtgg tcgcaggaag cagaggaggc
1561 caggttctta ctagtctccc ttgcatgatt tagaaagcct gccctggtac ctcacccctt
1621 gccataatta ctacatcact tgctggagct ctgtccctcc tgcccttgag ctcatggcac
1681 tctatgttct aagaagtga aatctacact ccagtggagc agctctgcat actcattagg
1741 atggttaatg tcagaagaaa gaaaatcata aaatagaagg tgtccacaaa ggtgcagatg
1801 ataagtg

(2) INFORMATION FOR SEQ ID NO:2560:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1510 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2560:

1 gtcaggattt aagtttacct caaaaatgga agattttaac atggagagtg acagctttga
61 agatttcttg aaagtggaag atcttagtaa ttacagttac agctctaccg tgcacctttt
121 tctactagat gccgccccat gtgaaccaga atccctggaa atcaacaagt attttgtggt
181 cattatctat gccctggtat tcctgctgag cctgctggga aactccctcg tgatgctggt
241 catcttatac agcagggtcg gccgctcctg cactgatgtc tacctgctga acctagcctt
301 ggccgacctt ctctttgccc tgaccttgcc catctgggcc gcctccaagg tgaatggctg
361 gatttttggc acattcctgt gcaagggtgt ctcactcctg aaggaagtca acttctatag
421 tggcatcctg ctactggcct gcatcagtgt ggaccgttac ctggccattg tccatgccac
481 acgcacactg acccagaagc gctacttggt caaattcata tgtctcagca tctggggtct
541 gtcttctgct ctggccctgc ctgtcttact tttccgaagg accgtctact catccaatgt
601 tagcccgacc tgctatgag acatgggcaa caatacagca aactggcgga tgctgttacg
661 gatcctgccc cagtcctttg gcttcacgtg gccactgctg atcatgctgt tctgctacgg
721 attcaccctg cgtacgctgt ttaaggccca catggggcag aagcacccgg ccattgctgt
781 catctttgct gtcgtcctca tcttctgct ttgctggctg cctacaacc tggctctgct
841 ggcagacacc ctcatgagga cccagggtgat ccaggagacc tgtgagcgcc gcaatcacat
901 cgaccggggt ctggatgcca ccgagattct gggcactcct cacagctgcc tcaacccctt
961 catctacgcc ttcatggccc agaagtttct ccatggactc ctcaagatc tagctataca
1021 tggcttgatc agcaaggact cctgccccaa agacagcagg ccttcccttg ttgctcttc
1081 ttcagggcac acttccacta ctctctaaga cctcctgcct aagtgcagcc cgtggggttc
1141 ctcccttctc ttcacagtca cattccaagc ctcatgtcca ctggttcttc ttggtctcag
1201 tgtcaatgca gccccattg ttgtcacagg aagcagagga ggccacgttc ttactagttt
1261 cccttgcatg gtttagaaag cttgccctgg tgccctaccc cttgccataa ttactatgtc
1321 atttgctgga gctctgccc tcctgcccct gagcccatgg cactctatgt tctaagaagt
1381 gaaaatctac actccagtga gacagctctg catactcatt aggatggcta gtatcaaaaag
1441 aaagaaaatc aggctggcca acgggatgaa acctgtgttc tactaaaaat acaaaaaaaaa
1501 aaaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2561:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2245 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2561:

1 gggagaaaca tagggaatag aaaataagta agaaggggac acctgggaac aggtttgcct
61 tcttgcatct tgcttaatgc tggcccttcc ctgaatgtct aagaccaacc tgggtccccc
121 atccaaatgc acagacacag ctgaggatgg agaaggctaa agagggacag aggtagagac
181 ataggctgag aggaggcagt ttagagttga gctagggtca aggtgttttc cccatattcc
241 atcttaccce acactcaggc caggccttag agttgtggaa ggtggagaac actgggaagc
301 caacctccga agaagaccag gttggagtca aaggagggaag gagagctctc attgccaaac
361 caacaggga gccaaggata tcccagtaac tgctctcaca tcattgatga gaatgccttg
421 aatccgagct actaaatcac atttcttccc ttctaacctt ccagtttagat caaaccattg

481 ctgaaactga agaggacatg tcaaatatta cagatccaca gatgtgggat tttgatgatc
541 taaatttcac tggcatgcc a cctgcagatg aagattacag cccctgtatg ctgaaactg
601 agacactcaa caagtatgtt gtgacatcg cctatgccct agtgttcctg ctgagcctgc
661 tgggaaactc cctggtgatg ctggtcatct tatacagcag ggtcgccgc tccgtcactg
721 atgtctacct gctgaacctg gccttggccg acctactctt tgcctgacc ttgccatct
781 gggccgcctc caagtgtaat ggctggattt ttggcacatt cctgtgcaag gtggtctcac
841 tcttgaagga agtcaacttc tacagtggca tctgtctgtt ggctgcac agtgtggacc
901 gttacctggc cattgtccat gccacacgca cactgacca gaagcgtcac ttggtcaagt
961 ttgtttgtct tggctgtctg ggactgtcta tgaatctgtc cctgcccttc ttccttttcc
1021 gccaggctta ccatccaaac aattccagtc cagtttgcta tgaggctcctg ggaaatgaca
1081 cagcaaaatg gcggtatggt ttgcggatcc tgcctcacac ctttggcttc atcgtgccgc
1141 gtgtttgtcat gctgttctgc tatggattca cctgcgtac actgtttaag gccacatgg
1201 ggcagaagca ccgagccatg aggtcatctt ttgctgtcgt cctcatcttc ctgctttgct
1261 ggctgcccta caacctggtc ctgctggcag acacctcat gaggaccag gtgatccagg
1321 agagctgtga ggcgcgaac aacatcgcc ggccctgga tgcactgag attctgggat
1381 ttctccatag ctgcctcaac ccatcatct acgccttcat cgccaaaat ttcgccatg
1441 gattcctcaa gatcctggct atgcatggc ttgtcagcaa ggagtctctg gcacgtcatc
1501 gtgttacctc ctacacttct tctctgtca atgtctcttc caacctctga aaacctcga
1561 tgaaggaata tctcttctca gaaggaaaga ataaccaaca cctgaggtt gtgtgtggaa
1621 ggtgatctgg ctctggacag gcactatctg ggttttggg ggacgtata ggtgtggg
1681 aagttaggaa ctggtgtctt caggggccac accaaccttc tgaggagctg ttgaggtacc
1741 tccaaggacc ggcctttgca cctccatgga aacgaagcac catcattccc gttgaacgtc
1801 acatctttaa cccactaact ggctaattag catggccaca tctgagcccc gaatctgaca
1861 ttagatgaga gaacagggtc gaagctgtgt cctcatgagg gctggatgct ctggttgacc
1921 ctacaggag catctcctca actctgagtg ttaagcgttg agccaccaag ctggtggctc
1981 tgtgtgctct gatccgagct caggggggtg gttttccat ctgaggtgtg ttgcagtgtc
2041 tgctggagac attgaggcag gcactgccaa aacatcaacc tgccagctgg cctgtgagg
2101 agctggaaac acatgttccc cttgggggtg gtggatgaac aaagagaaag agggtttggg
2161 agccagatct atgcacaaag aaccccttt acccccatga ccaacatcgc agacacatgt
2221 gctggccacc tgctgagccc caagt

(2) INFORMATION FOR SEQ ID NO:2562:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9319 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2562:

1 tattcatcaa gtgccctcta gctgttaagt cactctgac tctgactgca gctcctactg
61 ttggacacac ctggccgggtg cttcagttag atcaaaccat tgctgaaact gaagaggaca
121 tgtcaaatat tacagatcca cagatgtggg attttgatga tctaaatttc actggcatgc
181 cacctgcaga tgaagattac agccctgta tgctagaaac tgagacactc aacaagtatg
241 ttgtgatcat cgcctatgcc ctagtgttcc tgctgagcct gctgggaaac tccctggatga
301 tgctgggtcat cttatacagc agggtcggcc gctccgtcac tgatgtctac ctgctgaacc
361 tggccttggc cgacctactc ttggccctga ccttgcctat ctgggccgcc tccaaggatga
421 atggctggat ttttggcaca ttctgtgca aggtggcttc actcctgaag gaagtcaact
481 tctacagtgg catcctgctg ttggcctgca tcagtgtgga ccgttacctg gccattgtcc
541 atgccacacg cacactgacc cagaagcgtc acttgggtcaa gtttgtttgt cttggctgct
601 ggggactgtc tatgaatctg tccctgccct tcttcctttt ccgccaggct taccatccaa
661 acaattccag tccagtttgc tatgaggtcc tgggaaatga cacagcaaaa tggcggatgg
721 tgttgaggat cctgcctcac acctttggct tcacgtgccc gctgtttgtc atgctgttct
781 gctatggatt caccctgcgt aactgttta aggccacat ggggcagaag caccgagcca
841 tgagggtcat ctttctgtc gtccctcatc tctgtcttg ctggctgccc tacaacctgg
901 tcttctgtgc agacacctc atgaggacc aggtgatcca ggagagctgt gaggcgcca
961 acaacatcgg ccgggccctg gatgccactg agattctggg atttctccat agctgcctca
1021 accccatcat ctacgccttc atcgccaaa attttcgcca tggattcctc aagatcctgg
1081 ctatgcatgg cctggtcagc aaggagttct tggcacgtca tctgtttacc tctacactt
1141 cttcgtctgt caatgtctct tccaacctct gaaaaccatc gatgaaggaa tatctctct
1201 cagaaggaaa gaataaccaa caccctgagg ttgtgtgtgg aagggtgact ggctctggac
1261 aggcactatc tgggttttgg ggggacgcta taggatgtgg ggaagttagg aactggtgtc
1321 ttcaggggcc acaccaacct tctgaggagc tgttgagta cctccaagga ccggcctttg
1381 cacctccatg gaaacgaagc accatcatte ccgttgaacg tcacatcttt aaccactaa

1441 ctggctaatt agcatggcca catctgagcc ccgaatctga cattagatga gagaacaggg
1501 ctgaagctgt gtcctcatga gggctggatg ctctcgttga ccctcacagg agcatctcct
1561 caactctgag tgttaagcgt tgagccacca agctggtggc tctgtgtgct ctgatccgag
1621 ctgagggggg tggttttccc atctcagggtg tgttgagtg tctgctggag acattgaggc
1681 aggcactgcc aaaacatcaa cctgccagct ggccttgtga ggagctggaa acacatgttc
1741 cccttggggg tgggtgatga acaaagagaa agagggtttg gaagccagat ctatgccaca
1801 agaaccctct ttaccctcat gaccaacatc gcagacacat gtgctggcca cctgctgagc
1861 cccaagtggg acgagacaag cagcccttag cccttccct ctgcagcttc caggctggcg
1921 tgcagcatca gcatccctag aaagccatgt gcagccacca gtccattggg caggcagatg
1981 ttcttaataa agcttctgtt ccgtgct
1 cctacaggtg aaaagcccag cgaccagtc aggatattaag tttacctcaa aaatggaaga
61 ttttaacatg gagagtga gctttgaaga tttctggaaa ggtgaagatc ttagtaatta
121 cagttacagc tctaccctgc ccccttttct actagatgcc gccccatgtg aaccagaatc
181 cctggaaatc aacaagtatt ttgtggtcat tatctatgcc ctggtatctc tgcagacct
241 gctgggaaac tccctcgtga tgctggtcat ctltacagc agggctcgcc gctccgtcac
301 tgatgtctac ctgctgaacc tagccttggc cgacctactc tttgacctga ccttgcccat
361 ctgggcccgc tccaagggtga atggctggat ttttgccaca ttcctgtgca aggtggtctc
421 actcctgaag gaagtcaact tctatagtgg catcctgcta ctggcctgca tcagtgtgga
481 ccgttacctg gccattgtcc atgccacacg cacactgacc cagaagcgt acttggtcaa
541 attcatatgt ctcagcatct ggggtctgtc ctgtgctctg gccctgctg tcttactttt
601 ccgaaggcag gtctactcat ccaatgttag ccagcctgc tatgaggaca tgggcaacaa
661 tacagcaaac tggcggatgc tgttacggat cctgccccag tcccttggtc tcatcgtgcc
721 actgctgac atgtctgtct gctacggatt caccctgcgt acgctgttta aggccacat
781 ggggcagaag caccgggcca tgcgggtcat ctttgcgtgc gtcctcatct tccgtgcttg
841 ctggtgccc tacaacctgg tccgtgctgg agacacctc atgaggacct aggtgatcca
901 ggagacctgt gagcgccgca atcacatcga ccgggctctg gatgccacc agattctggg
961 catccttcac agctgcctca acccctcat ctacgccttc attggcaga agtttcgcca
1021 tggactctc aagattctag ctatacatgg ctgtatcagc aaggactccc tgcccaaaga
1081 cagcaggcct tcccttgttg gctctctctc agggcacact tccactactc tctaagacct
1141 cctgcctaag tgcagcccg tggggttct ccttctctt cacagtcaca tccaagcct
1201 catgtccact ggttcttctt ggtctcagtg tcaatgcagc cccattgtg gtcacaggaa
1261 gcagaggagg ccacgttctt actagtctcc ctgtcatggt ttagaaagct tgccctggtg
1321 cctcaccctc tgcataatc actatgtcat ttgctggagc tctgcccac ctgcccctga
1381 gccatggca ctctatgttc taagaagtga aaatctacac tccagtgaga cagctctgca
1441 tactcattag gatggtagt atcaaaagaa agaaaatcag gctggccaac gggatgaaac
1501 cctgtctcta ctaaaaatc aaaaaaaata gcccggcgtg gtggtgagtg
1561 cctgtaatca cagctacttg ggaggtgag atgggagaat cacttgaacc cgggaggcag
1621 aggttgagtg gagccgagat tgtgcccctg cactccagcc tgagcgacag tgagactctg
1681 tctcagtcga tgaagatgta gaggagaaac tggaaactctc gagcgttgct gggggggatt
1741 gtaaaatggt
1 ggatccaagt aggatgtagt gtcctgtagt tattatccac agggaaacatt ctacaaagtt
61 ttgggagact gtaatgtcat gggaaatgca agaatatgtg tccagcatgg aagggaatca
121 gtatggaagt cttttgataa attgtggcat ttatcactaa cattgcctca aaactttaga
181 ctacctgcca tatacaaatt agaggtgaaa attacttcca tgtaatatatc aagccaacac
241 aaagaatcct atcccagttt ctggatgga taggcaagaa tctgggtaag gtttattgtg
301 caataatcct ctctctctt ctataggcca ggatttaagt ttacctcaa aatggaat
361 tttggctggg aaaattacat gtgggaagac atcttcagtg gagattttag taattacagt
421 ttcagctatg accctacccc tttctacta gattctgccc catgttggcc agaatcccta
481 gaaatcaatt atgttttgat catcatctat gccctgatgt ttctactgaa cgtgatgtga
541 aactccctgc cgtgctggt catcttattc agctgagtca gccactgtca ccgatgtcta
601 cctgctgacc ctggccttgg ccgacctgtt ctttccctg acattgccca tcttgctgc
661 ctccaagatg aatggtgga tttttggcac aatctgtgcc aggtggtcta gctcctgaag
721 gaagtcaact tctacggtg tattctacta ctggcctgcc gcagcatgga ctgttacctg
781 gccattgtcc atgccacacg cacactgacc cagcagcgcc acttggtcaa gttcatatgt
841 ctgggtttgt ggaacctgtt cctgttactg tccctacgca tcttgctttt ccgaaggacc
901 tcttaccat ccaatgttag cccagctctgc tatgaggaca tgggcaacaa tacagcaaac
961 tgggtgatgc tgttacggat cctgccccag tcccttggtc tcatcgtgcc gctgcgatca
1021 tgcgtttctg ctacagattc accctgcata cgctgtttta ggcccatatg gggcagaagc
1081 actggaccat gtgggtcatc tttgctgttg tctcatttt cctgctctgc tggctgccct
1141 acacacctgt cctgctggca gacacctca tgggaacca gatgaccaat gagactgtg
1201 agcgcgcaa cgacatcaac caggccctg atgccactga gattctgggc atcttcaca
1261 gctacctcaa tccccctac taagccttca ttggccagaa gttttgcat ggacttctca

1321 agattatagc catacacggc ttgatcagca aggactccct gcccaaagac agcaggcctt
1381 cctttgttgg ctcttcttca gggcacactt ccactactct ctaagacctc ttgcctaagt
1441 gcagtccegt ggggttcttc ccttctcttc acagtcacat tccaagcctc atgtccacta
1501 gctcttcttg gtctcagtggt cagtgacagc ccactgtgg tcgcaggagc cagaggaggc
1561 caggttctta ctagtgtccc ttgcatgatt tagaaagcct gccctggtag ctcacccctt
1621 gccataatta ctacatcact tgctggagct ctgtccctcc tgcccttgag ctcatggcac
1681 tctatgttct aagaagtga aatctacact ccagtgagac agctctgcat actcattagg
1741 atgggttaatg tcagaagaaa gaaaatcata aaatagaagg tgtccacaaa ggtgcagatg
1801 ataagtg
1 gtcaggattt aagtttacct caaaaatgga agattttaac atggagagtg acagctttga
61 agatttctgg aaaggtgaag atcttagtaa ttacagttac agctctaccc tgcccccttt
121 tctactagat gccgccccat gtgaaccaga atccctggaa atcaacaagt attttgtggt
181 cattatctat gccctggtat tctgtctgag cctgtctggga aactccctcg tgatgctggt
241 catcttatac agcagggtcg gccgctccgt cactgatgtc tacctgtcga acctagcctt
301 ggccgacctc ctctttgccc tgaccttgcc catctgggac gccctcaagg tgaatggctg
361 gatttttggc acatttctgt gcaagtggtg ctactcctcg aaggaagtca acttctatag
421 tggcatcctg ctactggcct gcatcagtggt ggaccgttac ctggccattg tccatgccac
481 acgcacactg acccagaagc gctacttggt caaattcata tgtctcagca tctggggtct
541 gtccttgctc ctggccctgc ctgtcttact ttcccgagg accgtctact catccaatgt
601 tagcccgacc tgctatgagg acatgggcaa caatacagca aactggcgga tgctgttacg
661 gatcctggcc cagtcctttg gcttctcgtg gccactgctg atcatgctgt tctgctacgg
721 attcaccctg cgtacgctgt ttaaggccca catggggcag aagcaccggg ccatgcgggt
781 catctttgct gtcgtcctca tcttctctgt ttgctggctg cctacaacc tggctctgct
841 ggcagacacc ctcatgagga cccaggtgat ccaggagacc tgtgagcgcc gcaatccat
901 cgaccgggct ctggatgcca ccgagattct gggcatcctt cacagctgcc tcaacccctt
961 catctacgce ttcattggcc agaagtctcg ccatggactc ctcaagattc tagctataca
1021 tggcttgatc agcaaggact cctgccccaa agacagcagg ccttctcttg ttggctcttc
1081 ttcaggggac acttccacta ctctctaaga cctcctgcct aagtgcagcc cgtgggggtc
1141 ctcccttctc ttcacagtc cattccaagg ctcatgtcca ctgggtcttc ttgggtctcag
1201 tgtcaatgca gccccattg tggtcacagg aagcagagga ggccacgttc ttactagttt
1261 cccttgcatg gtttagaaag cttgccctgg tgccctaccc ctggccataa ttactatgtt
1321 atttgctgga gctctgccc tccctgcccc gagcccatgg cactctatgt tctaagaagt
1381 gaaaatctac actccagtga gacagctctg catactcatt aggatggcta gtatcaaaag
1441 aaagaaaate aggtctggcca acgggatgaa accctgtctc tactaaaaat acaaaaaaaa
1501 aaaaaaaa
1 gggagaaaaca tagggaatag aaaataagta agaaggggac acctgggaac aggtttgcct
61 tcttgcattt tgcttaatgc tggcccttcc ctgaatgtct aagaccaacc tgggtccccc
121 atccaaatgc acagacacag ctgaggatgg agaaggctaa agaggggacag aggttagagac
181 ataggctgag agggaggcagt tgtaggttga gctagggcta aggtgttttc cccatattcc
241 atcttaccce acactcagge caggccttag agttgtggaa ggtggagaac actgggaagc
301 caacctccga agaagaccag gttggagtca aaggagggaag gagagctctc attggccaaac
361 caacagggaa gccaaaggata tcccagtaac tgctctcaca tcattgatga gaatgccttg
421 aatccgagct actaaatcac atttccctcc ttctaacctt ccagttagat caaaccattg
481 ctgaaactga agaggacatg tcaaatatta cagatccaca gatgtgggat tttgatgatc
541 taaatttcac tggcatgcca cctgcagatg aagattacag cccctgtatg ctagaaactg
601 agacactcaa caagtatggt gtgatcatcg cctatgccct agtgttccct ctgagcctgc
661 tgggaaactc cctggtgatg ctggtcatct tatacagcag ggtcgccgcg tccgtcactg
721 atgtctacct gctgaacctg gccttgcccg acctactctt tgccctgacc ttgcccactt
781 gggccgcctc caaggtgaat ggctggaatt ttggcacatt cctgtgcaag gtggtctcac
841 tcttgaagga agtcaacttc tacagtggca tctgtctggt ggctgtcac agtgtggacc
901 gttacctggc cattgtccat gccacacgca cactgaccca gaagcgtcac ttggtcaagt
961 ttgtttgtct tggctgctgg ggaactgtct tgaatctgtc cctgcccctc ttccttttcc
1021 gccaggctta ccatccaaac aattccagtc cagtttgcta tgaggtcctg ggaaatgaca
1081 cagcaaaatg gcggatgggt ttgaggatcc tgccctcacac ctttggtctc atcgtgccgc
1141 tggttgtcat gctgttctgc tatggattca ccttgctgac actgtttaag gccacatgtg
1201 ggcagaagca ccgagccatg aggtcatctt ttgctgtcgt cctcatcttc ctgcttggct
1261 ggctgcccct caacctgggt ctgctggcag acacctcat gaggaccag gtgatccagg
1321 agagctgtga gcgcccgaac aacatcgcc gggccctgga tgccactgag attctgggat
1381 ttctccatag ctgcccacac cccatcatct acgcccctat cggccaaaat tttcgccatg
1441 gttctctcaa gatcctgggt atgcatggcc tggtcagcaa ggagttcttg gcacgtcatc
1501 gtgttaacct ctacacttct tcgtctgtca atgtctcttc caacctctga aaaccatcga
1561 tgaaggaata tctcttctca gaaggaaaga ataaccaaca ccctgaggtt gtgtgtggaa

1621 ggtgatctgg ctcctggacag gcactatctg ggttttgggg ggacgctata ggatgtgggg
 1681 aagttaggaa ctggtgtctt cagggggccac accaaccttc tgaggagctg ttgaggtacc
 1741 tccaaggacc ggcctttgca cctccatgga aacgaagcac catcattccc gttgaacgtc
 1801 acatctttaa cccactaact ggctaattag catggccaca tctgagcccc gaatctgaca
 1861 ttagatgaga gaacagggct gaagctgtgt cctcatgagg gctggatgct ctcgttgacc
 1921 ctacacaggag catctctca actctgagtg ttaagcgttg agccaccaag ctggtggctc
 1981 tgtgtgctct gatccgagct caggggggtg gttttcccat ctgaggtgtg ttgcagtgtc
 2041 tgctggagac attgaggcag gcactgccaa aacatcaacc tgccagctgg ccttgtgagg
 2101 agctggaac acatgttccc ctgggggtg gtggatgaac aaagagaaag agggtttga
 2161 agccagatct atgccacaag aaccccttt acccccatga ccaacatcgc agacacatgt
 2221 gctggccacc tgctgagccc caagt

(2) INFORMATION FOR SEQ ID NO:2563:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 591 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2563:

1 ccgctgtcaa gatgcttctg gccatggtcc ttacctctgc cctgctctg tgctccgtgg
 61 caggccaggg gtgtccaacc ttggcgggga tcttgacat caacttcctc atcaacaaga
 121 tgagggaaga tccagcttcc aagtgccact gcagtgtcaa tgtgaccagt tgtctctgtt
 181 tgggcattcc ctctgacaac tgcaccagac catgcttcag tgagagactg tctcagatga
 241 ccaataccac catgcaaaaca agataccac tgattttcag tcgggtgaaa aaatcagttg
 301 aagtactaaa gaacaacaag tgtccatatt ttctctgtga acagccatgc aaccaaacca
 361 cggcaggcaa cgcgctgaca ttctgaaga gtcttctgga aattttccag aaagaaaaga
 421 tgagagggat gagaggcaag atatgaagat gaaatattat ttatcctatt tattaattt
 481 aaaaagcttt ctctttaagt tgctacaatt taaaatcaa gtaagctact ctaaatcagt
 541 atcagttgtg attatttgtt taacattgta tgtctttatt ttgaaataaa t

(2) INFORMATION FOR SEQ ID NO:2564:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2810 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2564:

1 atatatatat gcataatagt ctctgtgtaa cagtaagtgg atgcagtaac tgggtgtgagg
 61 gcaacttgga gagtgtgctt ggaggcacag agatgctcag ggctgcctgg actgcctcca
 121 tgatggtggc ctgctctgta ttaggtgagt gttcaggaaa ggtgagggca gggcagccca
 181 cagcttcaca gtggccagg gaagcagggc aggcaggcta tgaggcctag taggcatctg
 241 ggccagactt tgacactgag gccatggaat ggggtgggct ctgagaacag acccaagtga
 301 tcatgggctg aaggctatgt ccacagatcc aaggcgggat aggctgtact gggcagtgat
 361 gtcagccagg ctccccagcg ggactggggg gtgcaggggc agctctgtcc cagggtggcag
 421 aactggttt cccctctgc tctcacaacc ggcctgttac cagggtgtgt ctgagctgtg
 481 gtgaggcttc cctggtgaca ttcaggagca gggagcctgc gagtaagggt gtatgcatct
 541 gccctgactg cctggccctg tgggtcaagg tgggggaagg cagctctgcc tgcagctcca
 601 cccatttat aaagcactgt ggtgcctct gctgggacat gtgctgagtg gtgcctcgca
 661 ggcactgccc tcgggaagtt cacaggctta tgtggaagct ggtgggaatg ggccaagaag
 721 agaggtgtca ggagccagg attgggcagg tcccaggctc ctgagcctca gtttctcat
 781 ctgtaggagg gtggtgaccc tgcctgctc agcttaccag gtacagatgt aagttttcag
 841 tgcagaggaa aagcagagaa cttccctca gatggccata ccccttgct gctgtaccca
 901 actctccggt cctacttgt agctctcagg tgcacatgt ggatcctgcc ctaccatccc
 961 ccttgccctg tctagaaacg aggcctgctg agcttggaaac catcccactc cctgctctca
 1021 agccgtctgc tcttgggtta gcctgtggt gacctggcct gattctacat agatgtgggt
 1081 gtttctccac tgcctgggca gcagttgtcc attctggggc ctgggtcagc tctcagctgt
 1141 ggcggttgtg cctgtgcttc cccaggctcc ggtggtgact ccaaccctgc cctcacatat
 1201 cccaagagca ggtgactgc cttcccatc cccaccttc cagtaactgc tgcaagaacg
 1261 gacagacact gctgcagaga acttgccacg gtgtttcatg ctgtggctgg tggttccagg
 1321 ctgcacgctc cattctagga aaggtgagg cttcctgac atcagctta acaggggact
 1381 gtctatggg tacctgtata cgctgccggg agtggggcag agtggggtta gagtagtgcc
 1441 tgctgcccac tggggttgtg cgggttcctt aagggctgta gtctgtgtgc gtgtctggtt
 1501 ttttctcct ccttatcagt aatcagctt gtataaccag gctggccctg cttcctgcct

1561 aggggctatc ggtgtaccat ctggagtgc aaatggggtg atagggcgtc agcggccttc
 1621 ccacacccaa gcacttcctg acacccagcc cctcatctct agccaacctc tggtcccttc
 1681 agggatccctg gggctcaggc ctacgcctcc agcatccggg ggctttgccc ttctgggtgt
 1741 gctcttcttt gcagggtgctt tggaaacagg gtgcaacaga gttcagaaag tgccatctgt
 1801 tgcattggata ccctgctgcc accctcgtcc acctttcttg ggagaaacag ttggatgggt
 1861 ctttatttaa gaggacaaaa gggagagaga atgcatagag gctgggtctg ttgggtcacg
 1921 cctgtaatcc caacactttg ggaggccaag gcagggtgat cccttgaggc caggaggtca
 1981 agactagcct ggccaacatg gtgaaacccc gtctctacta aaaatacaaa aaaaaaaaaa
 2041 ttagctgggc atggcgggag atgcctgtaa tcccagctac tcgggaggct gaggcaggat
 2101 aatcacttga acccaggagg cgagggttgc agtgagccaa gatcacacca ctgcactcta
 2161 gcctgggtga cagagggaga ctgtctcaaa aaaaaaaaaa ttgcttagaat ttgtctgtgt
 2221 gacctgggct aagtcatttc ccctccttgg gactcagttc ctgacctgtg aacggggaca
 2281 gtgcttctcc cttacagagc tgttgtgaga attaaagtag aaaatgtacc tatgggtggt
 2341 gttggtagt accagttccc ccaaccctga ctcccctgca ggatggggcc tgggcccggg
 2401 aatgggggat gggctggcag aggatgactg tcccagagag gactctcttc ggcagatgtg
 2461 gagacctagc tgagttagag gccaggatct aagtttgagg gtgttctta caccctgcag
 2521 ccatgagtct ttggctgagt caaatggcct ttctgagctc agttccttat cagttaaagg
 2581 tggacagtgg tccaggagc tggacactgt gtgagtgtta ggacacagga cactgtgtga
 2641 gtgcagggtg ggacccatgg agcactctgc tggggagcaa ttcattggga gacccctcc
 2701 agagagggat gatttgaca gggccctcag ccagtcctc tgcaggctgg accttgaga
 2761 gtgaggccct gaggcagagc atgggcacct ggctcctggc ctgcactctg

(2) INFORMATION FOR SEQ ID NO:2565:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17073 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2565:

1 ggatccatgc ccagaattat tcacgaattt cacttaaaat agcatatatg cttgaaccca
 61 ggagtctgag gctgcagcga gctatgatca tgtcactgca ctccagccca gcctgggcga
 121 cagagcaaga ctctgtgtct aaagaaatga aaataaaaat aaataaaaata gcatatacag
 181 gcaacaatcc aaatgttcat tgcagaaatt atgattatta ttgtttttct tttagaggca
 241 ggggtgtcact ctgttgccca gactaatctt gacctcctgt gactcctcaag agatcctccg
 301 gtctctgctt cccaaagtgc ttggattaca ggtgtgaggc actgggccta gacattgcag
 361 ggattattaa accatggtgc atactaccat taaaggtatg aggtagggtt tatatgctga
 421 cctagaaaga tggtgcaaca ccatagggga acaagaaggc tgcaaaagtgg cagcacagca
 481 ggagtcttta agaaataggt atttgtttca gcttaagaag tgtctggctg ggcgtgggtg
 541 ctcacacctg taatcccagc acttagggag gcttaggtgg gcggatcact tgaggttagg
 601 agttcaagac cagcccagtc aacaccgggt aaaccccatc tctactaaaa atacaaagaa
 661 attagctggg cttggtggca ggtggctgta atcccagcta ctcaggagct gaggcaggag
 721 aatcatctga acccgggagg cgagggttgc agtgagccta gatcgacca ctgcactcca
 781 gcctgggtga cagagtaaga ctcggtcaaa aaaaaaaaaa aaaaagaccg ggtgcagggt
 841 ctctcgctg taatcccagc actttgggag gcctaggcag gaggatcaca aggtcaggag
 901 atcgagacca tcttgcccaa catggtgaaa ccccatctct actaaaatac aaaaatttagc
 961 cgggtgtgat ggcacacgcc ttagtcccca gctactcagg aggctgaggc aggggaatcg
 1021 cttgaaacca ggagggtgag gctgcagtga gccgagatca cgccactgca ctccagcctg
 1081 gcgacagagc aagactccat ctcaaaaaag aaaaagaaac aaacaaacaa acaaaatccc
 1141 caaaaaagcaa aagtgctgct atggacttgt gcctaaactac tcacagtggc tacttcttgg
 1201 gggagggtgaa aggggacctt gttaaagaat ttttctctct tattgttttt cttcaactga
 1261 gtctgcatta attttatatt taatactctc cccacccttg atgctcacag gttgcttagg
 1321 ctggtggaag gagaacctgc acctctggtt ttggcaaaag ttagaagggg acaagggcac
 1381 tgctctgac ctgcacaggt tcttgctctc tggggctcag ttaatgaatc tcagtgggtg
 1441 gctctgggaa gaacacagtg gacactcact tgccagtcag tagacaaatc actgaagtcc
 1501 atgtctggca gttctcaatg tcatggggac tgtaaggttg tcatgtctca cagttccctg
 1561 acttagaaga ttagtggtga cagacacttc tcagctctgc tcgggagagc agctctgtaa
 1621 tgcgcttgtg gtttcagatg tggggcgccct gtgtgaacct gtcgtgcaaa gctcacgtca
 1681 ccaactgctg cagttatctc ctgaatcagg ctgagggtct ttgctgtgca ccagagata
 1741 gttgggtgac aaatcacctc cagggttggg atgcctcaga cttgtgatgg gactggggcag
 1801 atgcatctgg gaaggtagt ctgtgctttg ggcttcccaa cctctcaagt cagcatgaaa
 1861 ttcagaaggc agagagggac atgtggccct ccaactcggg gccaggggag ccactgtggc
 1921 atttgagagc gccaccttag ctttacctcc tctggtgtcc tggccttgtg tatctcttag

1981 agatggcaaa atttgagccc ctgacctcaa ggattacaaa ctaatttcca gtcctgtagg
 2041 ggatcatgggt tctgctgtgg ccagtgtggc actgagtttg tcaggcagaa ttcttaatta
 2101 tgggaaggaaac tctgcttccct cagtgtattga actgaccttt gtgggggtgc ctttgtgggg
 2161 tgagaatggg catacttggg cctcagttgt gatggccatg ggggtggagct gaggtctagg
 2221 cccagggctg ggaagcttc taccacccc gaggcatttg ggtgttttag ggcagaagag
 2281 gagccaggag gatgggtatg ccccaactga gctgtgtgtg gggcagcagg tgaggggtggg
 2341 attccagagg gaggtgtcaac ccagccaagc agaggaaagg gaggagaggg ttgtttttgg
 2401 aaagaacatc accctctcag ttccctgggg tctggatagc ctgttcttgt gatgagctgg
 2461 aggatgtggg ccctgcttgg atcctectct cccctccctg ccccatttt ctcttctctgt
 2521 gattttatgct gttctgggct caccctcttc ccagagctct cacgctacag ctgacaggca
 2581 gggcaggcgt ttaattatt attaatTTTT ttttgagaca gattttgaga cagtatcaag
 2641 attgggtatc ctctcagcgt gtcttcaagt agcatcccag agccccgctc ctgggtaccc
 2701 acaacatgaa caccgtccag aagcaagggc agcctctgca ggtggggcgg ggggtggaaa
 2761 acatttatca aacggttgag ttgggtgcag gggatgcaac atgatcaaac agggctcttg
 2821 ctccaggagc ctcatgtagg gacaacgcac agtcatgacc ttaactgca gtggggcagc
 2881 aaggctgtgg gaggggtgtt ttgggcagag caggcgacgt gggtagctct taccacagc
 2941 agcaggaaga gcacggacat cattttcccg tctcacctcc agactcccag gggactgtgc
 3001 caatatctc actggagccc tgcccatggc actgctcaa cccttgggccc ctgtcagttc
 3061 agggctgtgc agaaggagag ttgctgtgc tcaggctcag gggttccgtc cagctaagga
 3121 ggctacttag gggactgggg aaaggcctca tgaaggacca ggctgtgat ggggagggaa
 3181 gatggcagag gggacagtgg gaagcagagc agcaggggtc tcctccacgc ctctctgtac
 3241 ttctcccacc cacccttgcc tgctcccctc tgccctgggt atgtgccctt gtccacccaa
 3301 cactctgca gtgccaaagc cagccctgac ttcttctga gctgtggccc agcgttccca
 3361 caggcattta cctcacggat gcagcactgc cctcatcct ctctctgaa agtgtgtggg
 3421 aaatgcttct tgggtccatc tctctccac cctgccttcc ctgcaccttc tctataggt
 3481 gtctgttgc tctgtacttg cctccagctg gcctttcaga cccatccct ccctgctcc
 3541 tgcccatccc taccctgtc agcacctac atactctgtg cccaacagca ttggggattc
 3601 cactgtgct gaaggaagtc ctcatgtggc ccagagaggg agctggcccc tgctccatt
 3661 tcagcacca tttcttgca caggctccat gtcccaggc tcagctgct tctgggtac
 3721 caaggctctg atttcttct ctccccccag cagacagaag acctgtctgg acaggtgtcc
 3781 acttcaatag taacttctga ggctgccagc ctctgaatg gtccagaaga accagacct
 3841 tcccgcgcc cattaaaaa gacaaaatat ggccaggcat gttggctcat gctgacatc
 3901 ccagcacttt gggaggccaa agcaggtgaa tcacttgagg ccaggagtac gagaccagcc
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(2) INFORMATION FOR SEQ ID NO:2566:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19883 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2566:

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 10861 aggaatagat tgctgggaca aggggacatg ggggacctgc tggaggccaa tgggggccag
 10921 tgaggtgccc acaggagagc gatttgcatg agccagtgaag agaagtggag atagagaaaa
 10981 gtggagagaa ttgcagggtc tcatgagggg aaatagaagg gacatgtggg tggatgagat
 11041 atgagtgtgt acccctgagg tggggaaatg ggggacagcc ttgcaggag gttggtgaa
 11101 tctatttggg cctgttgggt tggagcccca ggtgacatcc ttgtgggagg gtcagtggat
 11161 ccttggcagc aagtctgtgt ctcagggaga cactgggtgg ggtgggagcc acagaccttc
 11221 cctgtatggc aaagacaggg ttcctggagg tgcgtggctc cctgtgtatc tgaggaccca
 11281 gctagtaact ccccgcttctg aaccgcccac cgcagctcac gctgtaaaag acgcgcgctt

11341 cagtataaat cagttctatg cggccgttag gcaaggaggc ccagttgggt cctgccctga
11401 gagtggggtg gaattgtgat agatgggaga gaggcagtg cagggacgag gtgggacgac
11461 ctctgtctga tggaaaggaag ctccagcctc gcagtgacct caggccacct gggtcgccat
11521 aggcctctga ctggcctctc ttggcctcag ggtgaagaga atcttctacc agaactgtgc
11581 ctctccagcg atgttcttcc agccctctca cagtgtacac aatgggaact tccaggtgtg
11641 tgcagagacc acagaaggac atggggggca ggggttgccc agagctctgg cctgcccaag
11701 atgttggtt tcatgaggtt tggcggccag tatgggaggc ttgtcagtc ttggagcctt
11761 ttttgtatat tcagtgaatt tcaatttata cgcgtatctc aaatggggaa aaattagctt
11821 tattttccat tgcgtatttc ttttgttct caggtctcta gtccattgt tgattgaaaa
11881 aatgtaaatt tctcataact tatctctgtc cctctgtgtt tgcagcttcc tgcacccacc
11941 atgtgcctca cctcctcctt ctgcgaaggt gtctgtctct tggccatggg gaagggtctg
12001 tgtgtgtgtg tgcctcctcag ggcctctcag ctctctgtct gctgtgtctc gctgtgtctc
12061 ctgtctctcc cggatcacat gatggcacca cagctgagga gtgggtctct cacttcccc
12121 ccttccaccc atgttgggct cctacagccc aggcaccagt gagcaacttg ggggttgcat
12181 cagccctctc cctcctctgt gggctgtgtt tcatgcccc ctgggtggga ggaaggggag
12241 agggagagct ccagtgaagt gtctctgtgt tttccctca gactcctcac tttgggcaaa
12301 ggacaagagg cagtgaaggc cctcctctgg ggtctgggac aagctgacca ctcttctcca
12361 gaacttctcc tccctgtccc ctccacactg tggctccagc ttactatgca gaaaaatcct
12421 tttctctctc aatgaggagc gtatgtttca agatgtttgt ccaaaaatat aatttgaaac
12481 atgaaccggg catctggctc ttggcagagt cctcctctt ccccaagggt gtatagtga
12541 ctgtcaggag cctgggcagc tgacgacaag gctgagcagg tcagattgtg actgtcccct
12601 ggaactgtcat cctgttgctg gcacagctgt tccctagag aactaggaca cctgccacg
12661 gttattttaga ctgcgggtga ggatctgtgt ccataggttg gtctccaggg agcactgcag
12721 tgatggaggg tgtgtgtgt gtgatgcag ggatggaggc tctgtgtccc accaagggaa
12781 cagcttctct ttggaggcgg gggcctcctg tggccccaca gaaggatcca ggtctgtctg
12841 ccataggcga gtgctttgaa agtcaccagt cctgacagcg attcgtgtgt gtgtctgtgt
12901 gtgtgtgtgt gtgtttatgt gtctgtgtgt gttcgtgtgt gtgtctgtgt gtgtgtgtgt
12961 gtgtgtatgt ctgtgtgtgt gtgtttatgt gtgtgtgtct gtatgtgttt aagtctgtgt
13021 gtgtttgtgt gtgtgtgtct ctgtgtgtgt gtctgtatct gtgtgtgttt gtgtctgtgt
13081 gtgtttgtgt gtgtgtctgt gtgtgtctgt gtgtgtgtct gtgtgtgtgt ttatgtgtct
13141 gtgtatgttt gtgtgtgtgt ttgtgtgtgt gtgtttgtgt ttatgtgtgt atgtctgtgt
13201 gtgtctgtgt gtctgtgtgt gtatgtgtct gtgtgtgttt atgtgtctgt gtgtgtctgt
13261 gtgtgtgtct gtgtgtgtgt gttgtgtgt gtatgtctgt gtgtgtgtgt gtttatgtgt
13321 gtgtgtctgt gtgtgtttat gtctgtgtgt gtttgtgtgt gtgtgtctcg tgtgtgtgtg
13381 tctgtgtgta tctgtgtgtg ttgtgtgtgt tgtgtgtctc tgtgtgtgtg tgtgtttgtg
13441 tatgttttgt gtgtgtgtgt ttgtgtgtgt gaatgccag tctctgcagc tgcgaaagg
13501 cctgaggca catgctgtca ggagctggct ctgtcctggg cagatatcac catctgtacc
13561 tcggttcagg ctgcctggg caccaggccc tgtgtgtggg gagtgtgag gaggctgaag
13621 ggaactcagg tccctgtatg aggcctgggt ggcacatgga ggaagacag aatgtccaag
13681 acacaggcgc tgcctggcct ctgggtgtgt acctcaggag ggcttctctg aggaggagg
13741 atgctgggct tgcagaaaag gaggcagctg ctcccaggat gatttctgaa catgctacct
13801 gagcccttcc ctccctccgt gctctgttcc agacttggat gggggccac ggggcccgtg
13861 tgcgtgtgag ccaggactgt gctggcacc caccaggagc ctggagccc tgcgtccagg
13921 aggcactgac actgctcact tgtggcccag cgcgtccttg gaaatctgtg gccctggagg
13981 agaacagga gggccctggg accaggctcc cggggaacct gaggctcagag gatgtgtctg
14041 cagcagggtg tacggagtgg agggtaacaga cgcttgccca tctgccacag gaggactggg
14101 cccccacgtc cctgaactag ccggtctccc cagactcaga gggcagcagg agcagcagca
14161 gcagcagcag cagcaacaac aacaactact gtgccttggg ctgctatggg ggatggcacc
14221 tctcagccct cccaggaaac acacagagct ctgggcccac cccagccctg gcctgtggcc
14281 tttcttgtga ccatcaggcg ctggagacc agcaaggagt tgcctgggtg ctggctggct
14341 actgccagag gcctgggctg catgaggacc tccagggcat gttgtcctct tctgtctca
14401 gcaaggctcg gtccctggca ttctaggctc ctgactcgcc agatgcata tgtccatttt
14461 ggaaaaatgg actgaagttt ctggagccct tgtctgagac tgaacctcct gagaaggggc
14521 cctagcagc ggctcagagt cctgtctgga tggaggctgg aggcctcccc ctcaaccct
14581 ctgctcagtg cctgtgggga gcagcctcta cctcagcat cctggccaca agttcttct
14641 tccattgtcc cttttcttta tccctgacct ctctgagaag tgggggtgtg tctctcagct
14701 gttctgccct cataccctta aaggccagc ctgggcccag tggacacagg taaggcacca
14761 tgaccacctg gtgtgacctc tctgtgcctt actgaggcac ctttctagag attaaaagg
14821 gcttgatggc tgttcccaaa gtgtgatgg ctgggagaag gggccagagg aggagtgagg
14881 ggtggggttt gtccagccct gggctttccg ggcctcagag atagcatggg tagggctcaa
14941 tgacagttct ggggacagca agttggaggt tcaggggagc cttcaggaca gcaggatgga
15001 ggctcaggga caattctctg gaggccagtg cctcgttcc tcttctctc catcctcccc

15061 cttgctccag gaaactgaga gctgagcctg gagcttccag acagtcagtg ctgggggtga
15121 ccataccagca gtgatggtag cctgtgaagg gtctgtcttc tgtccctcagc ctctcatggg
15181 gtgggcttgt ggaggagctg tggctctggag agagtggcag ttggagcaga acgtgcctgc
15241 gtttgtttcc tagggctgtc gtaacaaagt gccacaaaat ggttagctta gaaccacaga
15301 gatttgttgt ctacacaattc tgaagtccag aagttggaaa taaagatgtt ggcagtgctc
15361 ccaaccacat gttcttgggc tcccatgaaa cagaagttga tattaggcca aggaagcttc
15421 ccagacaaga ctttattaa gtttatgccc cgaagtttg ggcagaagag agacggtgca
15481 ggaggaagaa ttcttggctg actccccaag gggaaatgcat tgggtgtct taaggagggt
15541 gacatacata atttatgagc tacatgagtg tcattgcaca tatggggtgg agcgaagggt
15601 gctcagacgc atgctaacac atacgttgca tgatcagaaa atggcagata agccctccc
15661 tgggtgagga ctttagtatt atcataagac cagggtcatt ctctggcct tgtgcacaag
15721 caggtgatgg agtcaactcc cgtcagtaag acttatggcg ggaatgctgt tatcttagtt
15781 tatttcagac agttggcaag gtctggccag caglatggc acctggaggg tgggtctgca
15841 aggtctagtg gtccagcggc acgtatggaa caatacgtta gtgggggtgg gccagtgccc
15901 atttatactc tctcagcagg gccatgctcc ctctgaaggc actagggaag gatttagttc
15961 aggcctctct tcagcttctg ttagtttctt ggcttgtgac accaaagctg taactttct
16021 tttgttttgt ttttggtagc gatttttctt ctgtttgccc agcctggagt gcaatggcac
16081 aatctcggct cactgcaacc tcctcctccc aggtttaagc aattcttctg cctcagcctt
16141 tggagtagct gtgattacaa ggcacgtct accacgcctg gctagttttt gtatttttag
16201 tagagacggt gtttcgctat gttggccagg ctgggtctcaa actcctgata tcaagtgatc
16261 cgtctgtctc tgcctcccaa agtgttggga ttacaggcat gagccaccgt gcctggccaa
16321 agttccagtc ttacagga ttttctctg tgtgcatte tgtgtccaaa ttccctttt
16381 ttaaaatcac aataatagtg aattaaggct ggccctaacc atttaatctt aacttgatca
16441 tctgcaaaaga cactatttcc atataaggtc acattcacag ctactggggt taggacttca
16501 acctagaggg cctgacttct ggcaccaacac atcatggccc atcccagcat gcccacatccc
16561 ctctcctggg tcccagcagg gatcacagga gggcctgact gctgggcttt gggctgacat
16621 tgggatcacc tgcctagtta gggctgtgac cagactgaga taggaggtgg gacctgactc
16681 ctgaggcagg gcttgaactc tggaccagat tacagactag ctgaaacagg caaaagcacc
16741 cctccataag acacaccac tggtgccaag tgagtttgcc gttctcatgg taacagctgg
16801 aaattactgc ccctttccat ggcaatgacc tgaaagtac caccctttt ctagaaattt
16861 cttaaataacc tcctccttaa tttgtatata gtacaagtg ggtataaata tgtgtgcaga
16921 actgcctctg agctgctact ctgggctgac tgcctatggg gcatccctgc tccataagga
16981 gcagtacctc tgcgtccact gtgcacagct gcttaataaa aagttgctct ctaataccac
17041 cgactcgecc ttgaattctt tctgggtga agc

(2) INFORMATION FOR SEQ ID NO:2567:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2042 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2567:

1 aattcagaac tcctcagccc cccaagaaaa aaatatcccc gtggaaattc ctttttaatg
61 accgaggcgg gggaaatatg cgtctctgga tggccagtga ctgcagcccc ccttccccga
121 taggaagggc ctgcgcgtcc ggggaccctt cgcttccccct tctgctgcgc gacctccctg
181 gcccctcgga gatctccatg gcgacgcgcg gcgcgcccga caacaggaaa gccttaggcg
241 gcgcggcctt gtgctcggag acttaagagt acccagcccc tcgacgtggt ggatgtcgag
301 tcttggggtc acacgcacag gcggtggcca agcaaacacc cgtcatatt tagtgcatga
361 gcctgggttc gagttgcgg agcctcgcgc gtagggcagg ggttcgagcg ccccttctcc
421 ctgcctcgcc tctgcgcctg ggggctgctg cctcagtttc ccagcgacag gcagggattt
481 cgagcgtccc cctcccctcc ctgcgtcaaga tccaagctag ctgcctcagt ttccccgcgg
541 agcctgggac gccagcggag gggctcggcg cgtagggatc acgcagcttc ctctctttt
601 ctgggagctg taaagacgcc tccgccaacg ccgaaaaggg aagcgaggag gccgcccggg
661 tgagtgccct cgggtgtaga gagaggacgc cgatttcccc ggacgtggtg agaccgcgt
721 tcgtcactcc cagcgttagc ggtcgcggg aggtgccttg ctctgctctg gccgttctc
781 gagaaatgcc cgtgtcagct aggtgtggac gtgacctagg gggaggggca tccctcagtg
841 gagggagccc ggggaggatt cctgggcccc caccagggca gggggctcat ccaactcgatt
901 aaagaggcct gcgtaagctg gagaggagg acttgagttc ggacccctc cagcctggga
961 gtctcagttt accgctttgt gaaatggaca caataacagt ctccactctc cggggaagtt
1021 ggcagtattt aaaagtactt aataaacgcc ttagcgcggt gtagaccgtg attcaagctt
1081 agcctggcgg ggaacaggga ggcgtggagg ccgggagcag cccccgggt catcgccctg
1141 ccaccgcgcg ccgattgctt tagcttggaa attccggagc tgaagcggcc agcgaggagg

1201 gatgaccctc tcggcccggt caccctgtca gtccggaaat aactgcagca tttgttccgg
 1261 aggggaagc gcgaggttcc cgggaaagca gcaccgcccc ttggcccca ggtggctagc
 1321 gctataaagg atcacgcgcc ccagtcgacg ctgagctcct ctgctactca gagttgcaac
 1381 ctcagcctcg ctatggctcc cagcagcccc cggcccgccg tgcgcgact cctggctcctg
 1441 ctcggggctc tgttcccagg tgagtcgggg tggggattgc cgtcgggcca gttctccgaa
 1501 gcccgggagg accggctccc gggtcaggtc atgcatgctt aggtagctgt ttatgggaag
 1561 gaggggctag agacagcgat tgaaagcaac agccagtagg ttccaatcca gacctgcat
 1621 acctccacgt gtggccttgg gctatagatt gcagctttaa aaaagggtag ggggttggag
 1681 atggagggga gggcggggcc tcgttttgtt gccaggcccg gtcttgaact ccgggggtct
 1741 agccttacct cctgcctcag cctcccaggt agctgggatg aggtgtgaac cagccttgc
 1801 ttggctagat tgcgtctctt acagtcttcc agctgtaaaa cgggaaacgt tatagcgcc
 1861 acctggcagg gtatcttggc ccagcgcaag acctggcccc aggactcgat catgatggtt
 1921 tgggaacttg gctctgtgcc aacccaacaa ggcttaaggg acccccaccc cctcaagat
 1981 gtatattctg ttcctcatcc tctctgcccc tgggaagtc cagggtgct tctacttggg
 2041 gg

(2) INFORMATION FOR SEQ ID NO:2568:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2986 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2568:

1 gcgccccagt cgacgtgag ctctctgct actcagagtt gcaacctcag cctcgtatg
 61 gctcccagca gcccccggcc cgcgtgccc gcaactcctg tctgctcgg ggtctgttc
 121 ccaggacctg gcaatgccca gacatctgtg tccccctcaa aagtcactct gcccccggga
 181 ggctccgtgc tggtagacatg cagcacctcc tgtgaccagc ccaagttgtt gggcatagag
 241 accccgttgc ctaaaaagga gttgctcctg cctgggaaca accggaaggt gtatgaactg
 301 agcaatgtgc aagaagatag ccaaccaatg tgctattcaa actgccctga tgggcagtca
 361 acagctaaaa ccttctctac cgtgtactgg actccagaac ggggtggaact ggcacccctc
 421 cctcttggc agccagtggg caagaacctt accctacgct gccaggtgga ggggtgggca
 481 cccggggcca acctcaccgt ggtgctgctc cgtggggaga aggagctgaa acgggagcca
 541 gctgtggggg agcccgtga ggtcacgacc acggtgctgg tgaggagaga tcaccatgga
 601 gccaatttct cgtgccgcac tgaactggac ctgcggcccc aagggtgga gctgtttgag
 661 aacacctcgg ccccttaccg gctccagacc tttgtctgct cagcgactcc cccacaactt
 721 gtacgcccc ggtcctaga ggtggacacg caggggaccg tggctctgtt cctggacggg
 781 ctgttcccag tctcggaggc ccagggtccac ctggcactgg gggaccagag gttgaacccc
 841 acagtcacct atggcaacga ctcttctcgc gccaaaggct cagtcagtgt gaccgcagag
 901 cagcagggca ccagacggct gacgtgtgca gtaatactgg ggaaccagag ccaggagaca
 961 ctgcagacag tgaccatcta cagctttccg gcgcccacg tgattctgac gaagccagag
 1021 gtctcagaag ggaccgaggt gacagtgaag tgtgaggccc acctagagc caaggtgacg
 1081 ctgaatgggg ttccagcccc gccactgggc ccgagggccc agctcctgct gaaggccacc
 1141 ccagaggaca acgggcgcag ctctcctcgc tctgcaacc tggaggtggc cggccagctt
 1201 atacacaaga accagaccgg ggagcttctg ttcctgtatg gccccgact ggacgagag
 1261 gattgtccgg gaaactggac gtggccagaa aattcccagc agactccaat gtgccaggct
 1321 tgggggaacc cattgcccga gctcaagtgt ctaaaaggatg gcaacttccc actgcccac
 1381 ggggaatcag tgactgtcac tcgagatctt gagggcacct acctctgtcg ggccaggagc
 1441 actcaagggg aggtcaccgg cgaggtgacc gtgaatgtgc tctcccccg gtatgagatt
 1501 gtcacatca ctgtggtagc agccgcagtc ataattggca ctgcaggcct cagcacgtac
 1561 ctctataacc gccagcgga gatcaagaaa tacagactac aacaggccca aaaagggacc
 1621 cccatgaaac cgaacacaca agccacgcct cctgaacct atcccgggac agggcctctt
 1681 cctcggcctt cccatattgg tggcagtggt gccacactga acagagtgga agacatatgc
 1741 catgcagcta cactaccgg ccctgggacg ccggaggaca gggcattgtc ctcagtcaga
 1801 tacaacagca tttggggcca tggtaacctgc acacctaaaa cactaggcca cgcattctgat
 1861 ctgtagtcac atgactaagc caagagggaag gagcaagact caagacatga ttgatggatg
 1921 ttaaagtcta gcctgatgag aggggaagtg gtgggggaga catagcccca ccatgaggac
 1981 atacaactgg gaataactga aacttgctgc ctattgggta tgctagggcc cacagactta
 2041 cagaagaagt ggcctccat agacatgtgt agcatcaaaa cacaaaggcc cacacttct
 2101 cagggatgcc agcttgggca ctgctgtcta ctgaccccaa cccttgatga tatgtattta
 2161 ttcatttgtt attttaccag ctatttattg agtgtctttt atgtaggcta aatgaacata
 2221 ggtctctggc ctcacggagc tcccagtcga tgccacattc aaggtcacca ggtacagttg
 2281 tacaggttgt aactgcagg agagtgcctg gcaaaaaagat caaatggggc tgggacttct

2341 cattggccaa cctgcctttc cccagaagga gtgatttttc tatcggcaca aaagcactat
 2401 atggactggt aatggttcac aggttcagag attaccaggt gaggccttat tcctcccttc
 2461 ccccaaaac tgacaccttt gttagccacc tccccacca catacatttc tgccagtgtt
 2521 cacaatgaca ctacgcggtc atgtctggac atgagtggcc agggaatatg cccaagctat
 2581 gccttgctct ctgtctctgt ttgcatttca ctgggagcct gcactattgc agctccagtt
 2641 tcctgcagtg atcagggtcc tgcaagcagt ggggaagggg gccaaggtat tggaggactc
 2701 cctcccagct ttggaagggt catccgcgtg tgtgtgtgtg tgtatgtgta gacaagctct
 2761 cgctctgtca cccaggtctg agtgcagtg tgcaatcatg gttcactgca gtcttgacct
 2821 tttgggctca agtgatcctc ccacctcagc ctctgagta gctgggacca taggctcaca
 2881 acaccacacc tggcaaatat gatitttttt ttttttttca gagacggggt ctgcgaacat
 2941 tgcccagact tcctttgtgt tagttaataa agctttctca actgcc

(2) INFORMATION FOR SEQ ID NO:2569:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3003 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2569:

1 gctataagga tcacgcgccc cagtcgacgc tgagctcttc tgctactcag agttgcaacc
 61 tcagcctcgc tatggctccc agcagccccc ggccgcgctt gccgcactc ctggtcctgc
 121 tcggggctct gttcccagga cctggcaatg ccagacatc tgtgtcccc tcaaaagtca
 181 tcctgccccg gggaggctcc gtgtgtgtga catgcagcac ctctgtgac cagcccaagt
 241 tgtttggcat agagaccccg ttgcctaaaa aggagttgct cctgcctggg aacaaccgga
 301 aggtgtatga actgagcaat gtgcaagaag atagccaacc aatgtgctat tcaaaactgcc
 361 ctgatgggca gtcaacagct aaaaccttcc tcaccgtgta ctggactcca gaacgggtgg
 421 aactggcacc cctcccctct tggcagccag tgggcaagaa ccttacccta cgctgccagg
 481 tggaggggtg ggcaccccg gccaacctca ccgtgtgctt gctccgtggg gagaaggagc
 541 tgaaacggga gccagctgtg ggggagcccg ctgaggtcac gaccacggtg ctgggtgagg
 601 gagatcacca tggagccaat ttctctgtgc gactgaact ggacctgcgg ccccaagggc
 661 tggagctgtt tgagaacacc tcggccccct accagctcca gacctttgtc ctgccagcga
 721 ctccccaca acttgtcagc ccccggtccc tagaggtgga cagcgagggg accgtgtctt
 781 gtcccttga cgggctgttc ccagctctcg aggccaggtt ccacctggca ctgggggacc
 841 agaggttgaa cccacagctc acctatggca acgactcctt ctgggccaa gctcagtc
 901 gtgtgaccgc agaggacgag ggcacccagc ggctgacgtg tgcagtaata ctggggaacc
 961 agagccagga gacactgcag acagtaccaa tctacagctt tcgggcgccc aacgtgattc
 1021 tgacgaagcc agaggtctca gaagggaccg aggtgacagt gaagtgtgag gccacacct
 1081 gagccaaggt gacgtgaat ggggttccag ccagccactt gggcccgagg gccagctcc
 1141 tgcctgaagc caccacagag gacaacgggc gcagctctc ctgctctgca accctggagg
 1201 tggccggcca gcttatacac aagaaccaga cccgggagct tcgtgtcctg tatggcccc
 1261 gactggacga gagggtatgt ccgggaaact ggacgtggcc agaaaattcc cagcagactc
 1321 caatgtgcca ggcttggggg aacccattgc ccgagctcaa gtgtctaaag gatggcactt
 1381 tcccactgcc catcggggaa tcagtactg tactcgaga tcttgagggc acctactct
 1441 gtcggggccag ggcactcaa ggggaggtca cccgcaaggt gaccgtgaat gtgctctccc
 1501 cccggtatga gattgtcatc atcactgtgg tagcagccgc agtcataatg ggcactgcag
 1561 gcctcagcac gtacctctat aaccgccagc ggaagatcaa gaaatacaga ctacaacagg
 1621 cccaaaaagg gacccccatg aaaccgaaca cacaagccac gcctccctga acctatccc
 1681 ggacagggcc tcttctcgg ccttccata ttggtggcag tgggtgccca ctgaacagag
 1741 tgggaagcat atgccatgca gctacacct cccgcccctg gacgcccagg gacaggcat
 1801 tgtcctcagt cagatacaac agcatttggg gccatggtac ctgcacacct aaaacactag
 1861 gccacgcatc tgatctgtag tcacatgact aagccaagag gaaggagcaa gactcaagac
 1921 atgattgatg gatgttaaag tctagcctga tgagagggga agtgggtggg gagacatagc
 1981 cccaccatga ggacatacaa ctgggaaata ctgaaacttg ctgcctattg ggtatgctga
 2041 ggccccacag acttacagaa gaagtggccc tccatagaca tgtgtagcat caaaacacaa
 2101 agggccacac ttcttgacgg atgccagctt gggcactgct gtctactgac cccaacctt
 2161 gatgatatgt atttattcat ttgtatttt accagctatt tattgagtgt cttttatgta
 2221 ggctaaatga acataggtct ctggcctcac ggagctccca gtccatgta cattcaaggt
 2281 caccaggtac agttgtacag gttgtacact gcaggagagt gcttgcaaaa aagatcaaat
 2341 ggggctggga cttctcattg gccaacctgc ctttcccag agggagtgt ttttctatcg
 2401 gcacaaaagc actatatgga ctggtaatgg ttcacaggtt cagagattac ccagtgggc
 2461 cttattcctc ccttcccccc aaaactgaca ctttgttag ccacctcccc acccacatac
 2521 atttctgcca gtgttcacaa tgacactcag cggtcatgtc tggacatgag tgcccaggga

2581 atatgcccaa gctatgcctt gtcctcttgt cctgttttga tttcactggg agcttgcaact
 2641 attgcagctc cagtttccctg cagtgtatcag ggtcctgcaa gcagtgggga agggggccaa
 2701 ggtattggag gactccctcc cagcttttga agcctcatcc gcgtgtgtgt gtgtgtgtgt
 2761 atgtgtagac aagctctcgc tctgtcaccg aggcctggagt gcagtggtgc aatcatggtt
 2821 cactgcagtc ttgacctttt gggctcaagt gatcctccca cctcagcctc ctgagtagct
 2881 gggaccatag gctcacaaca ccacacctgg caaatttgat tttttttttt tttttcagag
 2941 acgggggtctc gcaacattgc ccagacttcc tttgtgttag ttaataaagc tttctcaact
 3001 gcc

(2) INFORMATION FOR SEQ ID NO:2570:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1846 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2570:

1 ctgagcctcg ctatggctcc cagcagcccc cggcccgcgc tgcccgcact cctggctcctg
 61 ctgggggctc tgttcccagg acctggcaat gccagacat ctgtgtcccc ctcaaaagtc
 121 atcctgcccc ggggaggctc cgtgctggtg acatgcagca cctcctgtga ccagcccaag
 181 ttgttgggca tagagacccc gttgcctaaa aaggagttgc tcctgcctgg gaacaacggg
 241 aagggtgtatg aactgagcaa tgtgcaagaa gatagccaac caatgtgcta ttcaaactgc
 301 cctgatgggc agtcaacagc taaaaccttc ctaccctgtg actggactcc agaacgggtg
 361 gaactggcac cctccccctc ttggcagcca gtgggcaaga acctaacct acgctgccag
 421 gtggagggtg gggcaccctg ggccaacctc accgtggtgc tgctccgtgg ggagaaggag
 481 ctgaaacggg agccagctgt gggggagccc gctgaggtca cgaccacggg gctgggtgag
 541 agagatcacc atggagccaa tttctcgtgc cgcactgaac tggacctgcg gcccacaggg
 601 ctggagctgt ttgagaacac ctcgcccccc taccagctcc agacctttgt cctgccagcg
 661 actccccac aacttgtcag cccccgggtc ctgaggtgag acacgcaggg gacctgggtc
 721 tgttccctgg acgggctgtt ccagctctcg gaggcccagg tccacctggc actgggggac
 781 cagaggttga accccacagt cacctatggc aacgactcct tctcgcccaa ggccctcagtc
 841 agtgtgaccg cagaggacga gggcaccctg cggctgacgt gtgcagtaat actggggaac
 901 cagagccagg agacactgca gacagtgaac atctacagct ttccggcgcc caacgtgatt
 961 ctgacgaagc cagaggtctc agaagggacc gaggtgacag tgaagtgtga ggcccaccct
 1021 agagcccaag tgacgctgaa tggggttcca gccagccac tgggcccag ggcccagctc
 1081 ctgctgaagg ccaccccaga ggacaacggg cgcagcttct cctgctctgc aacctgggag
 1141 gtggccggcc agcttataca caagaaccag acccgggagc ttctgtctct gtatggcccc
 1201 cgactggacg agagggattg tccgggaac ttgacgtggc cagaaaattc ccagcagact
 1261 ccaatgtgcc aggcttgggg gaacccattg cccgagctca agtgtctaa ggatggcact
 1321 ttcccactgc ccatcgggga atcagtgaat gtcactcgag atcttgaggg cacctacctc
 1381 tctcgggcca ggagcactca aggggaggtc acccgcgagg tgacctgaa tgtgctctcc
 1441 ccccggtatg agattgtcat catcactgtg gtacgagccg cagtataat gggcactgca
 1501 ggccctcagca cgtacctcta taaccgccag cggaagatca agaaatacag actacaacag
 1561 gcccaaaaaa ggacccccat gaaaccgaac acacaagcca cgcctccctg aacctatccc
 1621 gggacagggc ctcttccctg gccttcccat attggtggca gtgggtgccac actgaacaga
 1681 gtggaagaca tatgccaatgc agctacacct accggccctg ggacgcccga ggacagggca
 1741 ttgtcctcag tcagatacaa cagcatttgg ggccatggta cctgcacacc taaaacacta
 1801 ggccacgcat ctgatctgta gtcacatgac taagccaaga ggaagg

(2) INFORMATION FOR SEQ ID NO:2571:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9877 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2571:

1 aattcagaac tctcagccc cccaagaaaa aaatatcccc gtggaaattc ctttttaagt
 61 accgaggcgg gggaaatatg cgtctctgga tggccagtga ctgcagcccc ctttccccga
 121 taggaagggc ctgcgcgtcc ggggaccctt cgcttccctt tctgctgcgc gacctccctg
 181 gcccctcgga gatctccatg gcgacgcccg gcgcgcccga caacaggaaa gccttagggc
 241 gcgcggcttg gtgctcggag acttaagagt acccagcccc tcgacgtggt ggatgtcgag
 301 tcttggggtc acacgcacag gcggtggcca agcaaacacc cgctcataat tagtgcatga
 361 gcctgggttc gagttgccg agcctcgcgc gtagggcagg ggttcgagcg ccccttctcc
 421 ctgcctcgcc tctgcgcctg ggggtgctg cctcagtttc ccagcgacag gcagggattt

481 cgagcgtccc cctccccctcc ctctgcaaga tccaagctag ctgcctcagt ttcccccggg
541 agcctgggac gccagcggag gggctcggcg cgtagggatc acgcagcttc cttccttttt
601 ctgggagctg taaagacgcc tccgcccaac ccgaaagggy aagcgaggag gccgcggggg
661 tgagtgcctc cgggtgtaga gagaggacgc cgatttcccc ggacgtgggt agaccgcgct
721 tcgtcactcc cacggttagc ggtcgccggg aggtgccttg ctctgctctg gccgcttctc
781 gagaaatgcc cgtgtcagct aggtgtggac gtgacctagg gggaggggca tccctcagt
841 gaggggagccc ggggaggatt cctgggcccc caccagggca gggggctcat ccactcgatt
901 aaagaggcct gcgtaagctg gagaggagg acttgagttc ggacccccct gcagccttga
961 gtctcagttt accgctttgt gaaatggaca caataacagt ctccactctc cggggaagtt
1021 ggaggtattt aaaagtactt aataaacgcc tttagcgggt gtagaccgtg attcaagctt
1081 agcctggcgc ggaacaggga ggcgtggagg ccgggagcag cccccggggt catcgccctg
1141 ccaccgcgcg ccgattgctt tagcttgga attccggagc tgaagcggcc agcgaggagg
1201 gatgaccttc tcgccccggg caccctgtca gtccggaaat aactgcagca tttgttccgg
1261 ccaatgtgcc aggttgggg gaacccattg cccgagctca agtgtctaaa ggatggcact
1321 ttccactgac ccacgaggga atcagtgact gtactcagc atcttgaggg caccctacctc
1381 tgcggggcca ggagcactca aggggagggt acccgcgagg tgaccgtgaa tgtgctctcc
1441 ccgctgatag agattgtcat catcactgtg gtacgagcgc cagtcataat gggcactgca
1501 ggctcagcca cgtacctcta taaccgccag cggaagatca agaaatacag actacaacag
1561 gcccacaaaag ggacccccat gaaacccaac acacaagcca cgcctccctg aacctatccc
1621 gggacagggc ctcttctcgc gccttcccat attggtggca gtggtgccac actgaacaga
1681 gtggaagaca tatgccatgc agctacacct accggccctg ggacgcggga ggacagggca
1741 ttgtcctcag tcagatacaa cagcatttgg ggccatggta cctgcacacc taaaacacta
1801 ggccacgcat ctgatctgta gtcacatgac taagccaaga ggaagg

(2) INFORMATION FOR SEQ ID NO:2572:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4704 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2572:

1 gaattcctgc cactcttctt gcaacggccc aggagctcag agctccacat ctgaccttct
61 agtcatgacc aggaccaggg cagcactcct cctgttcaca gccttagcaa cttctctagg
121 tttcaacttg gacacagagg agctgacagc cttccgtgtg gacagcgctg ggtttggaga
181 cagcgtggtc cagtatgcca actcctgggt ggtggttga gcccccaaa agataacagc
241 tgccaaccaa acgggtggcc tctaccagtg tggctacagc actggtgcct gtgagcccat
301 cggcctgcag gtgccccggg aggcctgtaa catgtccctg ggctgtccc tggcgtctac
361 caccagcctt tccagctgac tggcctgcgg cccacccgtg caccacgagt gcgggaggaa
421 catgtacctc accggactct gcttcctcct gggccccacc cagctcacc agaggtctcc
481 ggtgtccagg caggagtgcc caagacagga gcaggacatt gtgttctga tcgatggctc
541 aggcagcatc tctcccgcga actttgccac gatgatgaac ttctgtgag ctgtgataag
601 ccagttccag agaccagca cccagttttc cctgatgcag ttctccaca aattccaaac
661 aacttctact ttcgaggaat tcaggcgcac gtcaaaccce ctcagcctgt tggcttctgt
721 tcaccagctg caagggttta catacacggc caccgccatc caaaatgtcg tgcaccgatt
781 gtccatgcc tcatatgggg cccgtaggga tggccacaaa attctcattg tcatcactga
841 tgggaagaaa gaaggcgaca gcctggatta taaggatgtc atcccatg ctgatgcagc
901 aggcattcat cgctatgcaa ttggggttgg attagctttt caaaacagaa attcttggaa
961 agaattaaat gacattgcat cgaagccctc ccaggaacac atattttaa tggaggactt
1021 tgatgctctg aaagatatc aaaaccaact gaaggagaag atctttgcca ttgagggtac
1081 ggagaccaca agcagtagct ccttcgaatt ggagatggca caggagggtc tcagcgctgt
1141 gttcacacct gatggccccg ttctgggggc tgtggggagc ttcacctggt ctggagggtc
1201 ctctctgtac cccccaaata tgagccctac cttcatcaac atgtctcagg agaattgtga
1261 catgagggac tcttacctgg gttactccac cgagctggcc ctctggaaa ggggtgcagag
1321 cctgggtcctg ggggcccccc gctaccagca caccgggaag gctgtcatct tcacccaggt
1381 gtccaggcaa tggaggatga aggccgaagt cacggggact cagatcggct cctacttcgg
1441 ggctccctc tgctcctggt acgtagacac cgacggcagc accgacctg tctcatcgg
1501 ggccccccat tactacgagc agacccgagg gggccagggt tctgtgtgtc ccttgcacag
1561 ggggtggaga aggtggtggt gtgatgctgt tctctacgg gagcagggcc acccctgggg
1621 tcgcttttgg gcggtcttga cagtgtgga ggtgtgaat ggggacaagc tgacagagct
1681 ggtcatcggg gccccaggag aggaggagaa ccggggtgct gtctacctgt ttcacggagt
1741 cttgggaccc agcatcagcc cctccacag ccagcggatc gcgggtccc agctctcctc
1801 caggctgcag tattttgggc aggcactgag cgggggtcaa gacctaccc aggatggact

1861 ggtggacctg gctgtggggg cccggggcca ggtgctcctg ctcaggacca gacctgtgct
1921 ctgggtgggg gtgagcatgc agttcatacc tgccgagatc cccagggtctg cgttttgagt
1981 tcgggagcag gtggtctctg agcagaccct ggtacagtcc aacatctgcc tttacattga
2041 caaacgttct aagaacctgc ttgggagccg tgacctccaa agctctgtga ccttggacct
2101 ggccctcgac cctggccgcc tgagtccccg tgccaccttc caggaaacaa agaaccggag
2161 tctgagccga gtccgagtc tccggctgaa ggcacactgt gaaaacttca acctgctgct
2221 cccgagctgc gtggaggact ctgtgacccc cattaccttg cgtctgaact tcacgctggt
2281 gggcaagccc ctcttgccct tcagaaacct gcggcctatg ctggccgcac tggctcagag
2341 atacttcacg gccctccctac cctttgagaa gaactgtgga gccgaccata tctgccagga
2401 caatctcggc atctccttca gcttcccagg cttgaagtcc ctgctggtgg ggagtaacct
2461 ggagctgaac gcagaagtga tgggtgtgaa tgacggggaa gactcctacg gaaccacat
2521 caccttctcc caccocgcag gactgtccta ccgctacgtg gcagagggcc agaacaagg
2581 gcagctgcgt tccctgcacc tgacatgtga cagcgcccca gttgggagcc agggcacctg
2641 gagcaccagc tgcagaatca accacctcat cttccgtggc ggcgcccaga tcaccttctt
2701 ggctaccttt gacgtctccc ccaaggtgtg cctgggagac cggctgcttc tgacagccaa
2761 tgtgagcagt gagaacaaca ctcccaggac cagcaagacc acctccagc tggagctccc
2821 ggtgaagtat gctgtctaca ctgtggttag cagccacgaa caattcacca aataacctca
2881 cttctcagag tctgaggaga aggaagcca tgtggccatg cacagatacc aggtcaataa
2941 cctgggacag agggacctgc ctgtcagcat caacttctgg gtgctgtgg agctgaacca
3001 ggaggctgtg tggatggatg tggaggtctc ccaccccg aacccatccc ttcggtgctc
3061 ctcagagaaa atcgaccccc cagcatctga cttcctggcg cacattcaga agaatcccgt
3121 gctggactgc tccattgctg gctgcctgcg gttccgctgt gacgtccct ccttcagcgt
3181 ccaggaggag ctggatttca cctgaaggg caacctcagc tttggctggg tccgccagat
3241 attgcagaag aagggtgctg tctgagtggt ggctgaaatt acgttcgaca catccgtgta
3301 ctcccagctt ccaggacagg aggcatttat gagagctcag acgacaacg tgctggagaa
3361 gtacaaggtc cacaaccccc ccccccctcat cgtaggcagc tccattgggg gtctgttgc
3421 gctggcactc atcacagcg tactgtacaa agttggcttc ttcaagcgtc agtacaagg
3481 aatgatggag gaggcaaatg gacaaattgc ccagaaaaac gggacacaga cccccagccc
3541 gccagtgag aatgatccc tctttgcctt ggacttcttc tccgcgatt tccccactt
3601 acttaccctc acctgtcagg ctgacgggga ggaaccaact caccaccgag agaggctggg
3661 atgggcctgc ttctgtctt tgggagaaaa cgtcttgcct ggggaagggc ctttgtctt
3721 tcaaggttcc aactggaaac ccttaggaca ggtccctgc tgtgttcccc aaaaggactt
3781 gacttgcaat ttctacctag aaatacatgg acaatacccc caggcctcag tctccctct
3841 cccatgaggc acgaatgatc tttctttcct ttcctttttt tttttttct tttttttt
3901 tttttttttg agacggagtc tcgctctgtc acccaggctg gagtgcattg gcgtgatctc
3961 ggctcgctgc aacctccgcc tcccgggttc aagtaattct gctgtctcag cctcctgcgt
4021 agctgggact acaggcacac gccacctcgc cggcccgat ctttctaaaa tacagtcttg
4081 aatatgctgc tcatccccc ctgtcttcaa cagctcccca ttacctcag gacaatgtct
4141 gaactctcca gcttcgctg agaagtcccc ttccatccca gagggtgggc ttcaggggcg
4201 acagcatgag agcctctgtg ccccatcac cctcgtttc agtgaattag tgcattgtca
4261 gcactagctc agggcttcat cgtgggctc tcagttccga ttccccagc tgaattggga
4321 gtgagatgcc tgcattgctg gttctgcaca gctggcctcc cgcggttggg tcaacattgc
4381 tggcctggaa gggaggagcg cctctaggg agggacatgg ccccggtgcg gctgcagctc
4441 accagcccca ggggcagaag agaccaacc acttcctatt ttttgaggct atgaatatag
4501 tacctgaaaa aatgccaagc actagattat ttttttaaaa agcgtacttt aaatgtttgt
4561 gttaatacac attaaaacat cgcacaaaaa cगतgcatt accgctcctt gggaaataat
4621 ctgaaaggtc taaaaataaa aaagccttct gtggaaaaaa aaaaaaaaaa aaaaaaaaaa
4681 aaaaaaaaaa aaaaaaaaaa aaaa

(2) INFORMATION FOR SEQ ID NO:2573:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4654 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2573:

1 gaattcctgc cactcttctt gcaacggccc aggagctcag agctccacat ctgaccttct
61 agtcatgacc aggaccaggc cagcactcct cctgttcaca gccttagcaa cttctctagg
121 tttcaacttg gacacagagg agctgacagc cttccgtgtg gacagcgtg ggtttggaga
181 cagcgtggtc cagtatgcca actcctgggt ggtggttggg gcccccaaa agataacagc
241 tgccaaccaa acgggtggcc tctaccagtg tggctacagc actggtgcct gtgagcccat
301 cggcctgcag gtgcccccg aggcctgtaa catgtccctg gcctgtccc tggcgtctac

361 caccagccct tcccagctgc tggcctgcgg cccaccgtg caccacgagt gcgggaggaa
421 catgtacct accggactct gcttctctct gggcccccacc cagctcacc agaggctccc
481 ggtgtccagg caggagtgcc caagacagga gcaggacatt gtgttctga tcgatggctc
541 aggcagcatc tcttcccga actttgccac gatgatgaac ttcgtgagag ctgtgataag
601 ccagttccag agaccagca cccagtttct cctgatgcag ttctccaaca aattccaaac
661 acacttcaact ttcgaggaat tcaggcgcac gtcaaacccc ctcagcctgt tggcttctgt
721 tcaccagctg caagggttta catacacggc caccgccatc aaaaatgtcg tgcaccgatt
781 gttccatgcc tcatatgggg cccgtaggga tgccacaaa atttctattg tcatcactga
841 tgggaagaaa gaaggcgaca gcttgatta taaggatgtc atccccatgg ctgatgcagc
901 aggcacatc cgctatgcaa ttggggttgg attagctttt caaaacagaa attcttgaa
961 agaattaaat gacattgcat cgaagccctc ccaggaacac atatttaaag tggaggactt
1021 tgatgctctg aaagatattc aaaaccaact gaaggagaag atctttgcca ttgagggtac
1081 ggagaccaca agcagtagct ccttcgaatt ggagatggca caggagggtc tcagcgtgt
1141 gttcacacct gatggcccc ttttgggggc tgtggggagc ttcacctggc ctggagggtc
1201 cttctgttac ccccaaaata tgagccctac cttcatcaac atgtctcagg agaatttgga
1261 catgaggggac tcttacctgg gttactccac cgagctggcc ctttgaaaag ggggtgcagag
1321 cctggctctg gggcccccgc gctaccagca caccgggaag gctgtcatct tcaccaggt
1381 gtcagggcaa tggaggtatg aggcgaagt caccgggact cagatcggct cctactctcg
1441 ggctccctc tgctccgtgg acgtagacac cgacggcagc accgacctgg tctcatcgg
1501 ggccccccat tactacgagc agaccagag gggccagggt tctgtgtgtc ccttgcccag
1561 ggggtggaga aggtggtggt gtgatgctgt tctctacggg gagcaggggc acccctgggg
1621 tgccttttgg gcgctctga cagtgtctgg ggatgtgaat ggggacaagc tgacagagct
1681 ggtcatcggg ccccaggag agggagagaa ccggggtgct gtctacctgt ttcacggagt
1741 cttgggaccc agcatcagcc cctccacag ccagcggatc gcgggctccc agctctctc
1801 cagctgcag tattttgggc aggcactgag ccgggggtcaa gacctcacc aggatggact
1861 ggtggacctg gctgtggggg cccggggcca ggtgtctctg ctcaggacca gacctgtgt
1921 ctgggtgggg gtgagcatgc agttcatacc tgccgagatc cccagggtct cgtttgagt
1981 tcgggagcag gtgtctctg agcagaccct ggtacagtc aacatctgcc tttacattga
2041 caaacgttct aagaacctgc ttgggagccg tgacctcaa agctctgtga ccttgacct
2101 ggccctcgac cctggccgcc tgagtccccg tgccacctc caggaaacaa agaaccggag
2161 tctgagccga gtcaggctc tcgggctgaa ggcacactgt gaaaacttca acctgctgt
2221 cccgagctgc gtggaggact ctgtgacccc cattaccttg cgtctgaact tcacgctggt
2281 gggaagccc ctccttgct tcagaaacct gcggcctatg ctggccgcac tggctcagag
2341 atacttccag gcctccctac cctttgagaa gaactgtgga gccgaccata tctgccagga
2401 caatctcggc atctccttca gcttcccagg cttgaagtcc ctgctggtgg ggagtaacct
2461 ggagctgaac gcagaagtga tgggtgtgaa tgacggggaa gactcctacg gaaccacct
2521 cacccttctc caccgcag gactgtccta ccgctacgtg gcagagggcc agaaacaagg
2581 gcagctgctg tccctgcacc tgacatgtga cagegcccc gttgggagcc agggcacctg
2641 gagcaccagc tgacagaatc accacotcat cttccgtggc ggcgcccaga tcaccttct
2701 ggtaccttt gacgtctccc ccaaggctgt cctgggagac cggctgtctc tgacagccaa
2761 gtgagcagt gagaacaaca cctccaggac cagcaagacc acctccagc tggagctccc
2821 ggtgaagtat gctgtctaca ctgtggttag cagccacgaa caattcacca aatacctcaa
2881 cttctcagag tctgaggaga aggaaagcca tgtggccatg cacagatacc aggtcaataa
2941 cctgggacag agggacctgc ctgtcagcat caacttctgg gtgcctgtgg agctgaacca
3001 ggaggtctgt tggatggatg tggaggcttc ccacccccag aaccatccc ttcggtgctc
3061 ctcagagaaa atcgcacccc cagcatctga cttctgtggc cacattcaga agaattccgt
3121 gctggactgc tccattgtg gctgcctgcg gttccgctgt gacgtcccct ccttcagcgt
3181 ccaggaggag ctggatttca cctgaaggg caacctcagc tttggctggg tccgccagat
3241 attgcagaag aaggtgtcgg tctgtgagt ggtgaaatt acgttcgaca catccgtgta
3301 ctcacagctt ccaggacagg aggcatttat gagagctcag acgacaacgg tgctggagaa
3361 gtacaaggtc cacaacccca ccccccctcat cgtaggcagc tccattgggg gtctgttgc
3421 gctggcactc atcacagcgg tactgtacaa agttggcttc ttcaggctc agtacaagga
3481 aatgatggag gaggcaaatg gacaaattgc cccagaaaac gggacacaga ccccagccc
3541 gccagtgag aatgatccc tctttgcctt ggacttcttc tcccgcgatt tccccactt
3601 acttaccctc acctgtcagg ctgacgggga ggaaccactg caccaccgag agaggctggg
3661 atgggcctgc ttcctgtctt tgggagaaaa cgtctgtctt gggagggggc ctttgtctg
3721 tcaaggttcc aactggaaac cttaggaca gggctccctg tgtgttcccc aaaaggactt
3781 gacttgcaat ttctacctag aaatacatgg acaatacccc caggcctcag tctccttct
3841 cccatgaggc acgaatgatc tttctttctt ttcctttttt ttttttttct tttcttttt
3901 tttttttttg agacggagtc tgcctctgtc acccaggctg gagtgcattg gcgtgatctc
3961 gctcgtctgc aacctccgcc tccgggttc aagtaattct gctgtctcag cctcctgct
4021 agctgggact acaggcacac gccacctcgc ccggcccgat ctttctaaaa tacagttctg

4081 aatatgctgc tcatcccccac ctgtcttcaa cagctcccca ttaccctcag gacaatgtct
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 4201 acagcatgag agcctctgtg ccccatcac cctcgtttcc agtgaattag tgtcatgtca
 4261 gcatcagctc agggcttcat cgtggggctc tcagttccga ttccccaggc tgaattggga
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 4501 tacctgaaaa aatgccaagc actagattat ttttttaaaa agcgtacttt aaatgtttgt
 4561 gttaatacac attaaaacat cgcacaaaaa cgatgcattt accgctcctt gggaaataat
 4621 ctgaaaggctc taaaaataaa aaagccttct gtgg

(2) INFORMATION FOR SEQ ID NO:2574:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2291 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2574:

1 ctccgccctgg tggggctgct ctccctcggg tgcgtcctct ctccaggagt caccgaagttc
 61 aaggtcagca gctgccggga atgcatcgag tcggggcccg gctgcacctg gtgccagaag
 121 ctgaacttca cagggccggg ggatcctgac tccattcgct gcgacaccgc gccacagctg
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 241 gaagaccaca atgggggcca gaagcagctg tccccacaaa aagtgcagct ttacctgcga
 301 ccaggccagg cagcagcgtt caacgtgacc ttcggcgccg ccaagggcta ccccatcgac
 361 ctgtactatc tgatggacct ctctactcc atgcttgatg acctcaggaa tgtcaagaag
 421 ctagggtggc acctgctccg ggccctcaac gagatcacgc agtcggccg cattggcttc
 481 gggctccttc tggacaagac cgtgctgccg ttcgtgaaca cgcacctga taagctgcga
 541 aaccatgcc ccaacaagga gaaagagtgc cgcgcccggt ttgccttcag gcacgtgctg
 601 aagctgacca acaactccaa ccagtttcag accgaggtcg ggaagcagct gatttcggga
 661 aacctggatg caccgaggg tgggctggac gccatgatgc aggtcgccgc ctgccggag
 721 gaaatcggct ggcgcaacgt cagcggctg ctggtgtttg ccaactgatg cggcttccat
 781 ttcgcgggcg acggaaagct gggcgccatc ctgaccccca acgacggccg ctgtcacctg
 841 gaggacaact tgtacaagag gagcaacgaa ttcgactacc catcggtggg ccagctggcg
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 961 acctacgaga aactcaccca gatcatcccc aagtcagccg tgggggagct gctcgaggac
 1021 tccagcaatg tggctcatct cattaagaat gcttacaata aactctcctc cagggtcttc
 1081 ctggatcaca acgcctctcc cgacaccctg aaagtcacct acgactcctt ctgcagcaat
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 1501 ctgggggact gtgtctgcgg gcagtgccgtg tgccacacca gcgacgtccc cggcaagctg
 1561 atatacgggc agtactgcga gtgtgacacc atcaactgtg agcgctacaa cggccaggtc
 1621 tgcggcgccg cggggagggg gctctgcttc tgcgggaagt gccgtgccca cccgggcttt
 1681 gagggtcag cgtgccagtg cgagaggacc actgagggtc gcctgaaccc gcggcgtgtt
 1741 gagtgtagtg gtcgtggccg gtgcccgtgc aacgtatgcg agtgccattc aggtaccag
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 1861 gccgagtgcc tgaagttcga aaagggcccc tttgggaaga actgcagcgc ggcgtgtccg
 1921 ggcctgcagc tgtcgaacaa ccccgtaag ggcaggacct gcaaggagag ggactcagag
 1981 ggctgctggg tggcctacac gctggagcag caggacggga tggaccgcta cctcatctat
 2041 gtggatgaga gccgagagtg tgtggcaggg cccaacatcg ccgcatcgt cgggggcacc
 2101 gtggcaggca tctgtctgat cggcattctc ctgctgtgtc tctggaaggg tctgatccac
 2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtgaac
 2221 aatgataatc cccttttcaa gagcgccacc acgacggtca tgaaccccaa gtttgctgag
 2281 agttaggagc a

(2) INFORMATION FOR SEQ ID NO:2575:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11649 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2575:

```

1  gaattcctgc cactcttctt gcaacggccc aggagctcag agctccacat ctgaccttct
61 agtcatgacc aggaccaggg cagcactcct cctgttcaca gccttagcaa cttctctagg
121 tttcaacttg gacacagagg agctgacagc cttccgtgtg gacagcgctg ggtttggaga
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361 caccagccct tcccagctgc tggcctgcgg cccaccctg caccacgagt gcgggaggaa
421 catgtacctc accggactct gcttctcctt gggccccacc cagctcacc cagagctccc
481 ggtgtccagg caggagtgc caagacagga gcaggacatt gtgttccctg tccgatggctc
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601 ccagttccag agaccagca cccagttttt cctgatgcag ttctccaaca aattccaaac
661 acacttctac ttcgaggaat tcaggcgcac gtcaaacc ctcagcctgt tggcttctgt
721 tcaccagctg caagggttta catcacggc caccgccatc caaatgtcg tgcaccgatt
781 gttccatgcc tcatatggg cccgtaggga tgccacaaa attctcattg tcatcactga
841 tgggaagaaa gaaggcgaca gcctggatta taaggatgtc atccccatgg ctgatgcagc
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961 agaattaaat gacattgcat cgaagccctc ccaggaaac atatttaaag tggaggactt
1021 tgatgctctg aaagatattt aaaaccaact gaaggagaag atctttgcca ttgagggtag
1081 ggagaccaca agcagtagct ccttcgaatt ggagatggca caggagggtc tcagcgctgt
1141 gttcacacct gatggcccc gcttgggggc tctggtggagc ttcacctgtg ctgagggtgc
1201 cttcctgtac ccccaaaata tgagccctac cttcatcaac atgtctcagg agaatgtgga
1261 catgagggac tcttacctgg gttactccac cgagctggcc ctctggaaag ggggtcagag
1321 cctggtcctg ggggcccccc gctaccagca caccgggaag gctgtcatct tcaccagggt
1381 gtccaggcaa tggaggatga aggcgaagt caccgggact cagatcggct cctacttcgg
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1561 ggggtggaga aggtggtggt gtgatgctgt tctctacggg gagcaggggc acccctgggg
1621 tcgctttggg gcggtcttga cagtgtgtgg ggtatgtaat ggggacaagc tgacagacgt
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1741 cttgggaccc agcatcagcc cctccacag ccagcggatc gcgggtctcc agctctctc
1801 caggtgcag tattttgggc aggcactgag cgggggtcaa gacctcacc aggatggact
1861 ggtggacctg gctgtggggg cccggggcca ggtgtcctg ctcaggacca gacctgtgct
1921 ctgggtgggg gtgagcatgc agttcatacc tgcgagatc cccaggtctg cgtttgagt
1981 tcggcagcgg gtgtctctg agcagacctt ggtacagtcc aacatctgcc tttacattga
2041 caaacgttct aagaacctgc ttgggagccg tgacctcaa agctctgtga ccttggacct
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2161 tctgagccga gtccgagtc tccgggtgaa ggcacactgt gaaaacttca acctgctgct
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2761 tgtgagcagt gagaacaaca ctcccaggac cagcaagacc acctccagc tggagctccc
2821 ggtgaagtat gctgtctaca ctgtggttag cagccacgaa caattacca aatacctcaa
2881 cttctcagag tctgaggaga aggaagacca tgtggccatg cacagatacc aggtcaataa
2941 cctgggacag agggacctgc ctgtcagcat caacttctgg gtgctgtgg agctgaacca
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3541 gccagtgag aaatgatccc tcttgcctt ggacttcttc tcccgcgatt tccccactt

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 2701 ggctaccttt gacgtctccc ccaaggctgt cctgggagac cggtgcttc tgacagccaa
 2761 tgtgagcagt gagaacaaca ctcccaggac cagcaagacc acctccagc tggagctccc
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 3841 cccatgaggc acgaatgatc tttctttctc tctcttttct tttttttct tctcttttct
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 1201 atcaccttcc aggtgaaggc cacggccaca gactgcaccc agggcagtc gtttgtcacc
 1261 cggcgctgg gcttcacgga catagtgcac gtgcaggtcc tccccagtg tgagtgcggg
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 1681 gagggctcag cgtgccagt gtagaggacc actgagggt gccggaaccc gcggcggttt
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 2101 gtggcaggca tcgtgctgat cggcattctc ctgctgttca tctggaaggc tctgatccac
 2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtggaac
 2221 aatgataatc ccttttcaa gagcgccacc acgacggtca tgaaccccaa gtttctgtag
 2281 agttaggagc a

(2) INFORMATION FOR SEQ ID NO:2576:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 665 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2576:

1 tcttctcttc ctgggcccgc ctctgagcag cagacggggc taagcgttcc ccagctcgcc
 61 ttcacacaca gcccggtgcc ccacaccgac ggtaccatga aggacgaggt agctctactg
 121 gctgctgtca cctcctggg agtctctctg caagcctact tctccctgca ggtgatctcg
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 481 tacttctctc cgcccgcgct gcgcgcgcgc ctctcggac ggctccggac gctgctcgcc
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 661 accga

(2) INFORMATION FOR SEQ ID NO:2577:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4465 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2577:

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 61 aggaggaaga agggattctg agagagccca acaggctccg agcctcaggc tggagctgag
 121 cttggggcag caaggaagga ccagggtcga gggcagaacc atggggcccg acccctgcag
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 721 agggccaaaga gaggcctggg agagggatgg cccacaaggg ctgacctctc cgccaccag
 781 ggggccttgg acaggtttcc tcctggcagg gtggcccttg tgcattggaac cctacaacg
 841 actaaggctg gcaggcatga ggtttcctga aggagaaaga gcttggtggg cccagtgtgg
 901 ctgggggggc gctgggactc cattctgaag ccaaaggcac tgggaagggc ttccgcagag
 961 gagggtttgg caggggttgc caggaacagc ctggatgggg acagggaaca gataaggtgg
 1021 gtggaggagt tagccgggag cctggggctg gctccagcat gatgtggggg tctgcaaggc
 1081 cctggagaaa gtgggggtgt gcagcagggg gcacaccac agctggagct gaccagatg
 1141 gacagcttgg gctctgccac gcgggactag gcaaggaggg ggcacgaaca agcaggaagt
 1201 ggtgagcgcg tctccagcta gctgctctcc cctgcccaga ctttggtttc ctccctgctg
 1261 gcttggcctg gctccctggc tctgtgtggt atggtcacac ccccgtcac cccctccact
 1321 gagatggggc ggggagagca ccgaggctgc tcttctcttc ctgggcccgc ctctgagcag

1381 cagacggggc taagcgttcc ccagctcgcc ttcacacaca gcccgtgccca ccacaccgac
1441 ggtaccatga aggacgaggt agctctactg gctgctgtca cctcctggg agtccctgctg
1501 caaggtgggc tggttccat cttaggaagag ggtgggcctt agatccctac agcttgccct
1561 ctgcccccta gggccaggtg gagggcagag gtggggactc cagcccaggc ccaagctgga
1621 agaggggtgg gactttcagg gaactggggg gcacctggct gtgagagctg taggacttgg
1681 ggggtggcaag ggtgccagga caaatggtag gatagccatg ggcttgggga agctgatctc
1741 tgctctttcc agctgtcccc tctctggcgg tcccagcaag cgcccccat tccctggctc
1801 tgcttcaaa ggcacctccat actgggacca cgtggagcag ggtagaggtg ggactccttc
1861 ctccagcccc ctaaaaagag cctgcttaat gcctttctca gactggccct aaaggacaca
1921 ttccttgccc agatatcctt gccacctaa agacaccact actccacagt gtgtgggcta
1981 ggataaggca cagcctgggg agggggctct gaaggggctg aacagacagg ccagcctgac
2041 ctccagctgc tctgcactg agctggatgg ccacctgtg acacctatct gcagagggcc
2101 cagaaccaa ggtgccaggg ctgcaggact cagggggaga tgggtccgac ggaggtctgg
2161 ggagggagcg cacagccagc actggtctgt gtgtggtctg gcttggcctc acctgaccaa
2221 gagaagggtc cctgccaca gagaaacttt agggccagcc caccctctgc aactacccca
2281 gccctggggt cctgggggta ggctaggaga gtcccagctg caacctctg ggagcaggag
2341 agaaggtgtc tgtcagattt aggcctggga ccggaatgca ggaacagaga aactgaggtt
2401 tggaggcaca gggacgcagg ctttagtgat cccggcctga ggcagggtca gagggccctg
2461 ctggtggcg ctggtaggtg ggtgaccagg gactgttagc tacaggaggt gtgcttcctt
2521 gcacctggga ggtgacgcc agctctgccc tcagactccc gaggcacttc ctggccaggg
2581 acctgaaagc tgcatttggc tgtgttttga gagtgaatg attcagaaac aaggactcaa
2641 gtggtctctc tcgcggagca ggtgtccctg tgccatgaat actcaccctc cccatacac
2701 tcacaggttg ggacagggcc tctctgcgcc ccaggcttca gccctgccct cctcgtgaa
2761 tgtcagggac acagggcagg ccagggatgg gtgagacgag aggtctcctc gggcggggag
2821 ggggcggggt tccgccttag ggaggagagg acacggccaa gtgaagggcc agattgcagg
2881 atccctccca ctcccatctc tggggcttgc ggtgtccaga cctgactccc gctccccctc
2941 ctcccccagc ctacttctcc ctgcaggatga tctcggcgcg caggcccttc cgcgtgtcgc
3001 cgccgctcac caccggccca cccgagttcg agcgcgtcta ccgagcccag tgaggcgcg
3061 cgggagggcg cggggcgggg agcgagcccc agcggggtcc ggtcgcagg accatcccgg
3121 ccggcgcgct catccacccc gccaccgca ggtgaaactg cagcgagtac tcccgcgtgt
3181 tccctgccac gctctgggtc gccggcatct tctttcatga aggtcggggt gtggggcagg
3241 gcgcgacgcg ctggaccccc gggaccgcg caggggcgtc accaggcccg tgcgtacttc
3301 tcgcaggggc ggcgccctg tgccgctgg tctacctgtt cgcgcgctc cgtacttcc
3361 agggctacgc gcgctccgcg cagctcaggt gagggccggg cggggagcgg ggcggggcgg
3421 gggaaagatc gcgggcgggc ggggctcctg gggagcggga ccgaagctgg gggcgggcga
3481 cgggcccggg ccagcgccct ttggggattc ggtgggcgag cctgggcggc ggccagaggga
3541 agtccccgtg gggccagggt tgcggcgggg aagaagcggg cctcctcggc ccacctcccc
3601 gctgaccgcc gcccgaggc tggcaccgct gtacgcgagc gcgcgcgcc tctggctgct
3661 ggtggcgctg gctgcgctcg gcctgctcgc caacttctc cggcgcgcg tgcgcgcgc
3721 gctctcggga cggtccggga cgtgctgccc gtgggcttga gaccaaggcc cccggggcga
3781 cggagccggg aaagaagagc cggagcctcc agctgccccg gggagggggc ctgcttccg
3841 catcctagtc tctatcatta aagttctagt gaccgagacc cgggctcgt tctctgggtc
3901 cgcggggggt gcgcaccgcg ggctacggag cctggagggg ccagcccga gtccgggcag
3961 cccggggcgg gcttccctagt ggcggcgtga gagtggctgc gaaggaaacga gccctcccc
4021 tggggcgggga ctggatccgg tcttccactc ctaccccact cctactcag cctcggggtc
4081 acaaggccgc ccagtctcgc cggggttccac cctcctagcg ctcagcggtc tctcaccgg
4141 tccccctcct caggggctt ccctcgactc tcagccgccc cagtccctg tccccggcc
4201 ttcacagctg acactagata gagcctgtgg ctctctcccc aggtgagggc aggggttttt
4261 cttttggtca gcaactgata cccctcgtaa actgtagggt ttcaggcgag ccctccagg
4321 tccgcagagc tgccggcacc atgggaacga agtgagtcag tgacaggcgg tctcaaggaa
4381 atgtccagaa gccttgggga tccaggggag gccacagaa acaaagaagt gacttttagc
4441 caagtatgca ggagaaacgg aggag

(2) INFORMATION FOR SEQ ID NO:2578:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5130 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2578:

1 tcttctctc ctgggcccgc ctctgagcag cagacggggc taagcgttcc ccagctcgcc
61 ttcacacaca gcccgtgccca ccacaccgac ggtaccatga aggacgaggt agctctactg

121 gctgctgtca cctcctctggg agtccctgctg caagcctact tctccctgca ggtgatctcg
181 gcgcgcaggg ccttcgcggt gtgcgcgcgc ctcaccaccg gccaccaccg gttcgagcgc
241 gtctaccgag ccaggtgaa ctgcagcgag tacttcccgc tgttccctgc cacgctctgg
301 gtgcgcgcga tcttctttca tgaagggcg gcggccctgt gcggccctgt ctacctgttc
361 gcgcgcctcc gctacttcca gggtacgcgc cgtccgcgc agctcaggct ggcaccgctg
421 tacgcgagcg cgcgcgcct ctggtgctg gtggcgctg ctgcgctcg cctgctcgcc
481 cacttccctc cggcgcgcgt gcgcgcgcgc ctctcggac ggctccggac gctgctcgcc
541 tgggcctgag accaaggccc ccgggcgcgc ggagccggga aagaagagcc ggagcctcca
601 gctgccccgg ggaggggcgc tcgcttccgc atcctagtct ctatcattaa agttctagt
661 accga
1 gagctcacag agccccagc tggggcatat ctggtttccg ggggcagggg cgataccag
61 aggaggaaga agggattctg agagagccca acaggctccg agcctcaggc tggagctgag
121 cttggggcag caaggaagga ccaggtgcga gggcagaacc atgcggcccg acccctgcag
181 cacggcctgt ggctccccc agctcctgcc cgtgcttctg ggtcagctct gactttgcca
241 cttctgacca aaagccaccg caaacccact caagccaaaa gaggaagtga ccgttaggcc
301 caactgggaa ggctggcggc caggggact ccaggcaggc cgaggggggc ggcggggggc
361 gctccagcgc ggcgagggga gacaccaga actccaggca ggagtcctcg ggtgccact
421 ttcctctcca cctggccctg cgtgggtctt gtccctcagg tggccgcgc tagtccccct
481 cccactctg agtttctctg cccaaagtcc taaggaaagt tccagaacta catctacca
541 tcttgagtca gccttggctc agtgccatc tcacaggcct ggaaggggca ggagtcagca
601 ctgtccagac cacaggccct gagtgtgggg agggcagccg tctaggaagg tggtagggg
661 ttgttacctt gaggcaagag ggctcgggg cagaaagaca cagcaggtga ctgttgggg
721 agggccaaga gaggcctggg agagggatgg ccacaaggc ctgacctcc cgcacccag
781 ggggccttgg acaggtttcc tcttgccagg gtggcccttg tgcaggaac ccctacaacg
841 actaaggctg gcaggcatga ggtttcctga aggagaaaaga gcttgtgggg cccagtgtg
901 ctgggggggc gctgggactc cattctgaag ccaaaggcac tgggaagggc ttcgcagag
961 gaggggttgg caggggttgc caggaacagc ctggatgggg acagggaaaca gataaggtg
1021 gtggaggagt tagccgggag cctggggctg gctccagcat gatgtggggg tctgcaaggc
1081 cctggagaaa gtgggggtgt gcagcagggg gcacacccac agctggagct gaccagatg
1141 gacagcttgg gctctgccac gcgggactag gcaaggaagg ggcacgaaca agcaggaagt
1201 ggtgagcggg tctccagcta gctgctctcc cctgcccaga ctttggtttc ctccctgctg
1261 gcttggcctg gctccctggc tctgtgtgtg atggtcacac cccggtgcac cccctccact
1321 gagatggggc ggggagagca ccgaggctgc tcttctctc ctgggccgtc ctctgagcag
1381 cagacggggc taagcgttcc ccagctcgcc ttcacacaca gcccggtgca ccacaccgac
1441 ggtaccatga aggacgaggt agctctactg gctgctgtca cctcctggg agtccctgctg
1501 caaggtgggc tggttcctat ctaggaagag ggtgggcctt agatccctac agcttgcct
1561 ctgccccta gggccagggt gggccagag gtggggactc cagcccaggc ccaagctgga
1621 agagggtggg gactttcagg gaactgggg gcacctggct gtgagagctg taggacttgg
1681 ggttggcaag ggtgccagga caaatggtag gatagccatg ggcttgggga agctgatctc
1741 tgctcttccc agctgtcccc tctctgggag tcccagcaag cggcccccat tccctggctc
1801 tgcttcaaa gcaacctcat actgggacca cgtggagcag ggtagaggtg ggaactctc
1861 tcccagcccc ctaaaaagag cctgcttaat gcctttctca gactggccct aaaggacaca
1921 ttccttggcc agatatcctt gccacctaa agacaccact actccacagt gtgtgggcta
1981 ggataaggca cagcctgggg agggggctct gaaggggctg aacagacagg ccagcctgac
2041 ctccagctgc tcttgcactg agctggatgg ccacctgtg acacctatct gcagagggcc
2101 cagaaccaaa ggtgccagg gtgcaggact cagggggaga tggctcgacg ggaggtctg
2161 ggagggagcg cagagccagc actggtctgt gtgtggtctg gcctggcctc acctgaccaa
2221 gagaagggtc cctgccaca gagaaacttt agggccagcc caccctctgc aactaccca
2281 gccctggggt cctggggtta ggctaggaga gtcccagctg caacctcctg ggagcaggag
2341 agaaggtgtc tgtcagattt aggcctggga ccggaatgca ggaacagaga aactgaggtt
2401 tggaggcaca gggacgcagg ctttagtgat ccggccctga ggcagggtca gaggccctg
2461 ctggtgggcg ctggtagggt ggtgaccagg gactgttagc tacaggaggt gtgcttctt
2521 gcacctggga ggtatgcagg agctctgcc tcagactccc gaggcacttc ctggccaggg
2581 acctgaaagc tgcatttgc tgtgttttga gagtgaatg attcagaaac aaggactcaa
2641 gtggtctctc tcgcgagca ggtgtccctg tgccatgaat actcaccctc ccccatcac
2701 tcacaggttg ggacaggcc tctctgcgc ccaggcttca gccctgccct cctcgtgaa
2761 tgtcagggac acagggcagg ccagggatgg gtgagacgag aggtctctc gggcggggag
2821 ggggcggggt tccgccttag ggagagagg acacggccaa gtgaagggcc agattgcagg
2881 atccctccca ctccatctc tggggcttgc ggtgtccaga cctgactccc gctcccccctc
2941 ctccccccag ctacttctc ctgcagggtg tctcggcgcg cagggccttc cgcgtgtcgc
3001 cgccgctcac caccggccca ccgagttcg agcgcgtcta ccgagccag tgaggcgcg
3061 cgggagggcg cggggcgggg agcgagcccc agggcggtcc ggttcgagc accatcccg

3121 ccgggcgcgt catccccccc gccacccgca ggggtgaactg cagcgagtagc ttcccgcgtgt
3181 tctctcgccac gctctgggtc gccggcatct tctttcatga aggtcgggggt gtggggcagc
3241 ggccgacgcg ctggaccccc gggacccgcg cagggcgctc accaggcccg tgcgtacctc
3301 tcgcaggggc ggccggccctg tgcggcctgg tctacctgtt cgcgcgcctc cgtactttcc
3361 agggctacgc gcctcccgcg cagctcaggt gagggccggg cggggagcgg ggccggggccg
3421 gggaaagatc gcggggcgggc ggggctcttg gggagcggga ccgaagctgg gggcgggcga
3481 cgggcgcgag ccacgcgcct ttggggattc ggtggcgag ccctggcggc gccacagaga
3541 agtccccgtg gggccagggt tgcggcgggg aagaagcggg cctcctcgcg ccacctcccc
3601 gctgaccgcc gcccgaggc tggcaccgct gtacgcgagc gcgcgcgcgc tctggctgct
3661 ggtggcgctg gctgcgctcg gcctgctcgc ccacttctc cgcgcgcgcgc tgcgcgcgcgc
3721 gctcctcgga cggctccgga cgtgctgccc gtgggcctga gaccaaggcc cccggggcga
3781 cggagccggg aaagaagagc cggagccctc agctgccccg gggagggggc ctcgcttccg
3841 catcctagtc tctatcatta aagtcttagt gaccgagacc cgggctgctg tctctgggtc
3901 cgcgggggtg gcgcaccgcg ggctacggag cctggagggg ccagcccgga gtccgggcag
3961 cccggggcgg gcttccctagt ggcggcgctg agtggtgctg gaaggaaacga gccctcccc
4021 tggggcgggg ctggatccgg tcttcacctc ctacccact ccctactcag cctcggggtc
4081 acaaggccgc ccagtcctgc cggggttcac cctcctagcg ctcagcgggc tctcaccgg
4141 tccccctcct caggggcctt cctcgcactc tcagccgcgc cagtccctcg tccccgggc
4201 ttcacagctg aactagata gagcctgtgg ctctctcccc aggtgagggc aggggttttt
4261 cttttggtca gactggatc cccctcgcta actgtagggt ttcagggcag ccctccgagg
4321 tccgcagagc tgcgggcacc atgggaacga agtgagtcag tgacaggcgg tctcaaggaa
4381 atgtccagaa gccttgggga tccaggggag gccacagaa acaaagaagt gacttttagc
4441 caagtatgca ggagaaacgg aggag

(2) INFORMATION FOR SEQ ID NO:2579:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3002 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2579:

1 gccattctct cacatcccggt gcggtcagga agcccttccct gaactctgac ttcagttctt
61 gctgcgggttt ctgcccattt ttttcatatc ctctgacagc tgcgagggtca tctctgctct
121 ggcttttttc aaagcagaac aagtgggggc tctggaaagg ttaaggggacc tcagtggcca
181 ccattatact ttgcatcttt cctgagaagt gagagttgaa aggggaagcag gaaggcccat
241 ggtcagattg aaggaaggac tttttagttt cttttttttt tttttgaaat ggagtcctgc
301 tctgtcatte aggtctggagt gcagtgggtg gatctcagct cactgcagcc tccacttcc
361 gggttcacat gatttctctg cctcagcctc ccaagtagct gagactacag gcacatgcca
421 ctacaccag ctaacttttg tatttttagt agagacgggg tttcaccatg ttggccaggc
481 tgggtctcaa ctgctaacat caagtgatct gctccccca gccctccaaa gtgctgggat
541 tacgggtatg aaccaccaca acctgccagg aatttttagt ttttagcttt tgcaggagac
601 ttcaggaaa ggagacatc ctctgtccag gaaacgggta aggggaccat ttctgcattg
661 ctggtttccc ctcttggcag ggtgggcag aggcatact gttcctgctc cctcactcct
721 gctcctcatg ctcagcctgc cagctcgcc tcaactttgt gtgtctaaag tggaactgaa
781 tagtagctgt gagaagatag gaaagaggta gtgccaatct ccttgcccag atcataaate
841 cagactcagc agggtaacca catgggcaag cacaaggtag gtgcttgggg aaagggaag
901 taattggcat tctgtgtgat accaaggaga ccatttggat tttggcttct accaaagaga
961 atggagaatt ggttgacctt aatggaacca gtccctttaa gtaaggggag gaaaggggt
1021 gctggaagat ggccctcttc ccaccaccta gatcatagct tgaactgaag ccaaggacag
1081 agtgctgccc ccttcggcat ttactgatgt gccctcttta aatcatgatg ttatctaacc
1141 caaaccaga cccaggacct agtcacagct ccaacctaca cttcctatta atcttaaac
1201 aaagcgaaac aaacacaaaa agatatcagc attgtagcct ccaatctgag cccatttccc
1261 ttctctggct accatacctc cttctctat atgataccat tcaactactt gttcaattat
1321 ccagtctaga cctgcacttt gaggccacac ccagccttct cactccccc acccctcttt
1381 cctctctcac tgcctcttcc tggctctctc tcacttggcc ccacctctaa ggagtcctcc
1441 tgcttctggt gttgccctgg aaaacagact atccccctc ctagtgaagg gagggtgtag
1501 gggtttccag cccaccctca ggaagatgcg tcttccctgt cctctgctct gtggtacttc
1561 ctctctggct gatttagcaa acagcaccta gacctggggc caggcctttg gcagtgggac
1621 agatcagagg ataggctaca ccacctgccc ctgacctgg gattggcatc agcttccaac
1681 cagttcctgc caaagcttgt aagtcctccc gacggccatg aacactacat cttctgcagc
1741 accccctca ctagggttag agttcatctc tctgctggct atcatcctgc tgtcagtggc
1801 gctggctgtg gggcttcccgc gcaacagctt tgtggtgtgg agtatcctga aaaggatgca

1861 gaagcgctct gtcactgccc tgatggtgct gaacctggcc ctggccgacc tggccgtatt
 1921 gctcactgct ccccttttcc ttcacttccct ggcccaaggc acctggagtt ttggactggc
 1981 tgggttgccgc ctgtgtcact atgtctgcgg agtcagcatg tacgccagcg tcttgcttat
 2041 cacggccatg agtctagacc gctcactggc ggtggcccgcc cccctttgtg cccagaagct
 2101 acgcaccaag gcgatggccc ggccgggtgct ggcaggcatc tgggtgtgtg cctttctgct
 2161 ggccacaccc gtcctcgctg accgcacagt agtgccctgg aaaacgaaca tgagcctgtg
 2221 cttcccgccg taccacagcg aagggaaccc ggcccttccat ctaatcttcg aggctgtcac
 2281 gggcttctcg ctgcccttcc tggctgtggt ggccagctac tcggacatag ggcgtcgct
 2341 acaggcccg gctctccgccc gcagcccgcc caccggccgc ctggtgtgtg tcatcatcct
 2401 gaccttcgcc gccttctggc tgccctacca cgtggtgaac ctggctgagg cgggccgcgc
 2461 gctggccggc caggcccgcc ggttagggct cgtggggaag cggctgagcc tggcccgcaa
 2521 cgtgctcact gcactcgctc tctgagcag cagcgtgaac cccgtgctgt acgctgccc
 2581 cggcgccggc ctgctgcgct cggccggcgt gggcttcgtc gccaaagctgc tggaggccac
 2641 ggggtccgag gcgtccagca cgcgcgcgg gggcagcctg ggccagaccg ctaggagcgg
 2701 ccccgccgct ctggagcccg gcccttccga gagcctcact gcctccagcc ctctcaagtt
 2761 aaacgaactg aactaggcct ggtggaagga ggcgcacttt cctcctggca gaatgctagc
 2821 tctgagccag ttcagtacct ggaggaggag cagggcgctg gaggcgctgg agggcgctgg
 2881 agcgtgggag gcgggagtg agtggaagaa gaggagaga tggagcaaa tgaggccga
 2941 gtgagagcgt gctccagcct ggctcccaca ggcagcttta accattaaaa ctgaagtctg
 3001 aa

(2) INFORMATION FOR SEQ ID NO:2580:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 848 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2580:

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
 61 aagccaagat gaaactcccc ctacttctgg ctcttctatt tggggcagtt tctgctcttc
 121 atctaaggct tgagacttcc acctttgaga cccctttggg tgctaagacg ctgctgagg
 181 atgaggagac accagagcag gagatggagg agacccttg caggagctg gaggaagagg
 241 aggagtgagg ctctggaagt gaagatgcct ccaagaaaga tggggctgtt gagtctatct
 301 cagtgcaga tatgtgac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
 361 tgggtggcat cctgggtg cagacctgcc gctacctcct ggtgagaagt cttcagacgt
 421 ttagtcaagc ttggtttact tgccggaggt gctacagggg caacctggtt tccatccaca
 481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
 541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
 601 gccgtggaa ctttgcgtac tgggctgctc accagccctg gtcccgggt ggtcactgcy
 661 tggccctgtg tacccgagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
 721 tcatctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcttgggcag
 781 ctgcttcccc tctctgtgct gccatccctc cctccacctc cctgcaataa aatgggtttt
 841 actgaaaa

(2) INFORMATION FOR SEQ ID NO:2581:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 848 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO 2581:

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
 61 aagccaagat gaaactcccc ctacttctgg ctcttctatt tggggcagtt tctgctcttc
 121 atctaaggct tgagacttcc acctttgaga cccctttggg tgctaagacg ctgctgagg
 181 atgaggagac accagagcag gagatggagg agacccttg caggagctg gaggaagagg
 241 aggagtgagg ctctggaagt gaagatgcct ccaagaaaga tggggctgtt gagtctatct
 301 cagtgcaga tatgtgac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
 361 tgggtggcat cctgggtg cagacctgcc gctacctcct ggtgagaagt cttcagacgt
 421 ttagtcaagc ttggtttact tgccggaggt gctacagggg caacctggtt tccatccaca
 481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
 541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
 601 gccgtggaa ctttgcgtac tgggctgctc accagccctg gtcccgggt ggtcactgcy
 661 tggccctgtg tacccgagga ggctactggc gtcgagccca ctgcctcaga agacttcctt

721 tcactctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcctgggcag
781 ctgcctcccc tcctctgctt gccatccctc cctccacctc cctgcaataa aatgggtttt
841 actgaaaa

(2) INFORMATION FOR SEQ ID NO:2582:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1696 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2582

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
61 aagccaagat gaaactcccc ctacttcttg ctcttctatt tggggcagtt tctgctcttc
121 atctaaggte tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
181 atgaggagac accagagcag gagatggagg agacccttg caggagctg gaggaagagg
241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctgtt gagtctatct
301 cagtgcaga tatgtgcac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
361 tgggtgggcat cctgggtgac cagacctgcc gctacctcct ggtgagaagt cttcagacgt
421 ttagtcaagc ttggtttact tgccggagggt gctacagggg caacctggtt tccatccaca
481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
601 gccgctggaa ctttgcgtac tgggctgctc accagccctg gtcccgcggt ggtcactgcg
661 tggccctgtg taccggagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
721 tcactctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcctgggcag
781 ctgcctcccc tcctctgctt gccatccctc cctccacctc cctgcaataa aatgggtttt
841 actgaaaa

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
61 aagccaagat gaaactcccc ctacttcttg ctcttctatt tggggcagtt tctgctcttc
121 atctaaggte tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
181 atgaggagac accagagcag gagatggagg agacccttg caggagctg gaggaagagg
241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctgtt gagtctatct
301 cagtgcaga tatgtggac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
361 tgggtgggcat cctgggtgac cagacctgcc gctacctcct ggtgagaagt cttcagacgt
421 ttagtcaagc ttggtttact tgccggagggt gctacagggg caacctggtt tccatccaca
481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
601 gccgctggaa ctttgcgtac tgggctgctc accagccctg gtcccgcggt ggtcactgcg
661 tggccctgtg taccggagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
721 tcactctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcctgggcag
781 ctgcctcccc tcctctgctt gccatccctc cctccacctc cctgcaataa aatgggtttt
841 actgaaaa

(2) INFORMATION FOR SEQ ID NO:2583:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 810 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2583

1 agcagagggg ctgagaccaa accagaaacc tccaattctc atgtggaagc ccatgccctc
61 accctccaac atgaaagcct ctgcagcact tctgtgtctg ctgtccacag cagctgcttt
121 cagcccccag gggcttgctc agccagtttg gattaatact tcaactacct gctgctacag
181 atttatcaat aagaaaatcc ctaagcagag gctggagagc tacagaagga ccaccagtag
241 cactgtccc cggaagctg taatcttcaa gaccaactg gacaaggaga tctgtgtcga
301 cccacacacag aagtgggtcc aggactttat gaagcacctg gacaagaaaa cccaaactcc
361 aaagctttga acattcatga ctgaactaaa aacaagccat gacttgagaa acaataaatt
421 tgtataccct gtcctttctc agagtgggtc tgagattatt ttaattctaat tctaaggaaat
481 atgagcttta tgtaataatg tgaatcatgg tttttcttag tagattttaa aagttattaa
541 tatttttaatt taatcttcca tggatttttg tgggttttga acataaagcc ttggatgtat
601 atgtcatctc agtgcgtgaa aaactgtggg atgctcctcc cttctctacc tcatgggggt
661 attgtataag tccttgcaag aatcagtcca aagatttgct ttaattgtta agatatgatg
721 tccttatgga agcatattgt tattatataa ttacatattt gcatatgtat gactcccaaa
781 ttttcacata aaatagattt ttgtaaaaaa

(2) INFORMATION FOR SEQ ID NO:2584:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1085 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2584

```
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaaac
61 ctgggggttag tatagcttag ttaaaactttc gtttattgct aaagggttaat cactgctgtt
121 tcccgtgggg gtgtggctag gctaagcggt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtga tttagagggt gaactcactg gaatggggat gcttgcatgt
241 gtaatcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgccctcac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccaggg gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaaac aaataatttg tataccctgt cctttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatgggt tttcttagta
781 gattttaaaa gttattaata ttttaattta atcttccatg gattttgggt ggttttgaac
841 ataaagcctt ggatgtatat gtcatctcag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
```

(2) INFORMATION FOR SEQ ID NO:2585:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1085 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2585

```
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaaac
61 ctgggggttag tatagcttag ttaaaactttc gtttattgct aaagggttaat cactgctgtt
121 tcccgtgggg gtgtggctag gctaagcggt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtga tttagagggt gaactcactg gaatggggat gcttgcatgt
241 gtaatcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgccctcac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccaggg gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaaac aaataatttg tataccctgt cctttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatgggt tttcttagta
781 gattttaaaa gttattaata ttttaattta atcttccatg gattttgggt ggttttgaac
841 ataaagcctt ggatgtatat gtcatctcag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
```

(2) INFORMATION FOR SEQ ID NO:2586:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2885 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2586

```
1 ggatccttaa gccatcatgc aaaatatcta gccatgtgga gggaccactg gaaagatcac
```

```

61 acacacacac acacacacac acacacacac atacagagag agagagagac acctgagaaa
121 ttccatcttg tccaaactgct ggctgttgaa gtcctcccag cccagacccc agacactgaa
181 tgaaggcctt gtgatatagt caagagcaaa aaaacccaga agattgttat tgttttaagt
241 cactgttttc agatagattg ctatgcagca atagattatt gaaatagaca ctacaatttt
301 aggtactatt attctaagaa tattgaattt ttttttctg ctaatgttct attattttac
361 ttttctctgg gttttagaaa gccaccagga ttttaagacag tgaagaatct ttgagtcctt
421 tgtagagttg aaccaaagt tgaatgtctc tttgtggact cgtgtcctag ggataccact
481 ccaaagggaa aaggggaata tcccttacat atctttgact ttggtatccc tgattccttc
541 ctttttctat agaatgtgtc tcatttcaga gaaactggtc tcttgataat agccatagat
601 tacatactgt ggtcttcctc tacatagacc ctacctcacc taccactcct ggtcttagct
661 gaaaaacagg ctagcctcga ctcatactgt catttcctat cctcccactg aagtgcactg
721 gctcagcaga tttattactc catagattta ttactccatt ctatgattca tctctcttgc
781 ttcctataaa aggcagagac agagcttcca gaggagcaga ggggctgaga ccaaaccaga
841 aacctccaat tctcatgttg aagcccatgc cctcacctc caacatgaaa gctctgcag
901 cacttctgtg tctgctgtc acagcagctg ctttcagccc ccaggggctt gctcagccag
961 gtaagggtccc tctctccttc tcttgaagc acattgcccc ctctctgggt tatcctggac
1021 caatcaagaa gacctgatac ccacagtctc actttaacag ctacttttcc aagataaggt
1081 aacttagaaa aaggataagg ggtgagccca accacacagc tgctgttggg tagagcctga
1141 actagaattc cagctgtgaa ccccaaattc agctccttct aggtatccag ctctgggaa
1201 acctcagtg cagttaccac tccagctgct tccagcagaa tttgggatca ggggtatcaa
1261 agacaggagg cttctgggga tgggtgtgct ggctgtttcc agataccggg agaccagaa
1321 tctggtctgt ggaagccag cttccagaaa cagcagctct gcagagtggt tacgtatcag
1381 ggaactcat gaccaagcat tgaatgtcga gagcctaaaa ggggatccat agttggggt
1441 cccttgctct aaggaattgg attattatat tagccctcc tagcaatgcc cagagtagcc
1501 atcaattcct cttcgtctt tcaactgggt atggtgcac cctatttcac agtcataaa
1561 agtgaaagg agtttatgaa atgcctcaaa gggcagagac attgggttg ggatggcag
1621 ctttccctc cactcttcc tttctttctg attccttctt ctaccattc cctgttttac
1681 aaacagaaag acccaggaca caccctcaat ggacttttct tcttgttgtt tcattgcagt
1741 tgggattaat acttcaacta cctgctgcta cagatttate aataagaaaa tccctaagca
1801 gaggtgag agctacagaa ggaccaccag tagccactgt ccccggaag ctgtaatgta
1861 tgtagcagat gaccaccac cctcaccac tcagtcttag gttcttccct gggcaggaa
1921 taggactagt atcagaatga gttggagtca aatactgtga tgcatacagc atctctaacc
1981 ttatccaga catttgccag tgagaacaa tacaagtaaa gaaagtggct tctcactctc
2041 agctccctt ccagctatca tttacatct cagttcgttc cttcatcctg gaaccaagag
2101 agattcactt gggctaccaa aaagagctgc tctctgagt ccccttccct tgttttatct
2161 tcttcttca tccctgaggc atcccacatc gctaggctga tgggctagac agatttccca
2221 tagacttggt cacactccca ggtgaaccc tcaaggtgtt ccatctgact gtctccttcc
2281 tgctccacag cttcaagacc aaactggaca aggagatctg tgctgacccc acacagaagt
2341 ggtccagga ctttatgaag cacctggaca agaaaaccca aactccaaag ctttgaacat
2401 tcatgactga actgaaaaca agccatgact tgagaacaa ataatttga taccctgtcc
2461 tttctcagag tggttctgag attattttaa tctaattcta aggaatatga gctttatgta
2521 ataagtgtga tcatggtttt tcttagtaga ttttaaaagt tattaatatt ttaatttaat
2581 cttccatgga ttttgggtgg tttgaacat aaagccttg atgtatatgt catctcagt
2641 ctgtaaaaac tgtgggatgc tctcccttc tctacctcat gggggtattg tataagtcct
2701 tgcaagaatc agtgcaaaga tttgctttaa ttgttaagat atgatgtccc tatggaagca
2761 tattgttatt atataattac atatttgc atgtatgact cccaaatttt cacataaaat
2821 agatttttgt ataacagctg ccattcatgg ttttttaaag gataagtaat aaagctgggt
2881 gggtg

```

(2) INFORMATION FOR SEQ ID NO:2587:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5865 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2587

```

1 agcagagggg ctgagaccaa accagaaacc tccaattctc atgtggaagc ccatgccctc
61 accctccaac atgaaagcct ctgcagcact tctgtgtctg ctgctcacag cagctgcttt
121 cagcccccag ggccttgctc agccagttgg gatttaact tcaactacct gctgctacag
181 atttatcaat aagaaaatcc ctaagcagag gctggagagc tacagaagga ccaccagtag
241 ccaactgtccc cggaagctg taatcttcaa gaccaactg gacaaggaga tctgtgctga
301 cccacacag aagtgggtcc aggaacttat gaagcacctg gacaagaaaa cccaaactcc

```

361 aaagctttga acattcatga ctgaactaaa aacaagccat gacttgagaa acaaataatt
421 tgtataccct gtcctttctc agagtgggtc tgagattatt ttaatctaatt tctaaggaat
481 atgagcttta tgtaataatg tgaatcatgg tttttcttag tagatttttaa aagtatttaa
541 tatttttaatt taatcttcca tggatttttg tggggtttga acataaagcc ttggatgtat
601 atgtcatctc agtgctgtaa aaactgtggg atgtcctcc cttctctacc tcatgggggt
661 attgtataag tccttgcaag aatcagtgca aagatttgct ttaattgtta agatattgatg
721 tccctatgga agcatattgt tattatataa ttacatattt gcatatgtat gactcccaaa
781 ttttcacata aaatagattt ttgtaaaaaa
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaacc
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaaggttaat cactgctgtt
121 tcccggtggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtg ttttagaggt gaactcactg gaatggggat gcttgcattg
241 gtaatcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgcccctac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccaggg gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cctttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatgggt tttcttagta
781 gatttttaaaa gttattaata ttttaattta atcttccatg gattttgggt ggttttgaac
841 ataaagcctt ggatgtatat gtcactcag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaacc
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaaggttaat cactgctgtt
121 tcccggtggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtg ttttagaggt gaactcactg gaatggggat gcttgcattg
241 gtaatcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgcccctac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccaggg gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cctttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatgggt tttcttagta
781 gatttttaaaa gttattaata ttttaattta atcttccatg gattttgggt ggttttgaac
841 ataaagcctt ggatgtatat gtcactcag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
1 ggatccttaa gccatcatgc aaaatatcta gccatgtgga gggaccactg gaaagatcac
61 acacacacac acacacacac acacacacac atacagagag agagagagac acctgagaaa
121 ttccatctgg tccaactgct ggctgttgaa gtcctcccag cccagacccc agacactgaa
181 tgaagcctt gtgatatagt caagagcaaa aaaaccaga agattgttat tgttttaagt
241 cactgttttc agatagattg ctatgcagca atagattatt gaaatagaca ctacaatttt
301 aggtactatt attctaagaa tattgaattt tattttctg ctaattgtct attattttac
361 ttttctctgg gttttagaaa gccaccagga ttttaagacag tgaagaatct ttgagtcctt
421 tgtagagttg aaccaaagt tgaatgtctc tttgtggact cgtgtcctag ggataccact
481 ccaaaggga aaggggaata tcccttacat atctttgact ttggatcccc tgattccttc
541 ctttttctat agaattgtgc tcatttcaga gaaactgggc tcttgataat agccatagat
601 tacatactgt ggtcttctc tacatagacc ctacctcacc taccactcct ggtcttagct
661 gaaaaacagg ctagcctcga ctactactgt catttccat cctcccactg aagtgcactg
721 gctcagcaga tttattactc catagattta ttactccatt ctatgattca tcctctctgc
781 ttctataaaa aggcagagac agagcttcca gaggagcaga ggggctgaga ccaaaccaga
841 aacctccaat tctcatgtgg aagcccatgc cctcaccctc caacatgaaa gcctctgcag
901 cacttctgtg tctgctgctc acagcagctg ctttcagccc ccaggggctt gctcagccag

961 gtaaggtccc tctctccttc tccttgaagc acattgcccc ctctctgggt tatectggac
1021 caatcaagaa gacctgatac ccacagtctc actttaacag ctacttttcc aagataaggt
1081 aacttagaaa aaggataagg ggtgagccca accacacagc tgctgttggg tagagcctga
1141 actagaattc cagctgtgaa ccccaaattc agctccttct aggattccag ctctgggaac
1201 accctcagtg cagttaccac tccagctgct tccagcagaa tttgggatca ggggtgatcaa
1261 agacaggagg ctctctggga tgggtgtgcg ggctgtttcc agataccggg agaccagaa
1321 tctgggtctgt ggaagcccag cttccagaaa cagcagctct gcagagggtg tacgtatcag
1381 ggaactcat gaccaagcat tgaatgctca gagcctaaaa ggggatccat agttggggtta
1441 cccttgctct aaggaattgg attattatat tagccctcc tagcaatgcc cagagtagcc
1501 atcaattcct ctccgtctt tcaactggtg atggtgcatc cctatttcac agtccataaa
1561 agtgaaaggg agtttatgaa atgcctcaaa gggcagagac attgggtttg ggatgggcag
1621 cttttccctc cactcttcc tttctttctg attccttctt cttaccattc cctgttttac
1681 aaacagaaag acccaggaca caccctcaat ggacttttct tctgttgtt tcattgcagt
1741 tgggattaat acttcaacta cctgctgcta cagatttatc aataagaaaa tccctaagca
1801 gaggctggag agctacagaa ggaccaccag tagccactgt ccccggaag ctgtaatgta
1861 tgtggacgat gaccaccac ccctcacacc tcagtcctag gttcttccct gggcagggaa
1921 taggactagt atcagaatga gttggagtca aatctgtga tgcatacagc atctctaacc
1981 ttatcccaga catttgccag tgagaaacaa tacaagttaa gaaagtggct tctcactctc
2041 agtcccttt ccagctatca tttacatct cagttcgttc cttcatcctg gaaccaagag
2101 agattcactt gggctaccaa aaagagctgc ttctctgagt ccccttctt tgttttatct
2161 tcttcttca tccctgaggc atccccatca gctaggctga tgggctagac agatttccca
2221 tagacttggt cacttccca ggctgaacc tcaagggtt ccatctgact gtctcctttc
2281 tgctccacag cttcaagacc aaactggaca aggagatctg tgctgacccc acacagaagt
2341 gggccagga cttatgaag cactggaca agaaaacca aactccaaag ctttgaacat
2401 tcatgactga actgaaaaca agccatgact tgagaaacaa ataatttgta taccctgtcc
2461 tttctcagag tggttctgag attattttta tctaattcta aggaatatga gctttatgta
2521 ataattgtga tcatggttt tcttagtaga ttttaaaagt tattaatatt ttaatttaatt
2581 cttccatgga ttttgggtggg ttttgaacat aaagccttgg atgtatatgt catctcagt
2641 ctgtaaaaac tgtgggatgc tctcccttc tctacctcat ggggtattg tataagtcct
2701 tgcaagaatc agtgcaaaaga tttgctttta ttgttaagat atgatgtccc tatggaagca
2761 tattgttatt atataattac atatttgcac atgtatgact cccaaatttt cacataaaat
2821 agatttttgt ataacagctg ccattcatgg ttttttaaag gataagtaat aaagctgggtg
2881 gggtta

(2) INFORMATION FOR SEQ ID NO:2588:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 741 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2588

1 aaccgagagg ctgagactaa ccagaaaga tccaattctc aaactgaagc tgcactctc
61 gcctccagca tgaaagtctc tgccgcectt ctgtgectgc tgctcatagc agccaccttc
121 attccccaag ggctcgctca gccagatgca atcaatgcc cagtcacctg ctgttataac
181 ttcaccaata ggaagatctc agtgcagagg ctgcgagct atagaagaat caccagcagc
241 aagtgtccca aagaagctgt gatcttcaag accattgtgg ccaaggagat ctgtgctgac
301 cccaagcaga agtgggttca ggattccatg gaccacctgg acaagcaaac ccaactccg
361 aagacttgaa cactcactcc acaacccaag aatctgcagc taacttattt tcccctagct
421 ttccccagac accctgtttt attttattat aatgaatttt gttgttgat gtgaacatt
481 atgccttaag taatgttaat tcttatttaa gttattgatg ttttaagttt atctttcatg
541 gtactagtgt tttttagata cagagacttg gggaaattgc ttttctctt gaaccacagt
601 tctaccctg ggatgtttt agggctttt caagaatcat taatacaaa aatttttttt
661 aacattccaa tgcattgcta aaatattatt gtggaaatga atattttgta actattacac
721 caaataaata tatttttgta c

(2) INFORMATION FOR SEQ ID NO:2589:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1522 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2589

1 agcccatgtc ctctcttttc aggtgatgac tttccctga ggaagccctg tagcgtgcct

61 ggaggaaggg gctctccaac cccagcccca cctagccacc atgaacactt cagccccacc
121 tgctgtcagc cccaacatca ccgtcctggc accaggaag ggtccctggc aagtggcctt
181 cattgggata accacgggcc tctgtcgtc agccacagtg acaggcaacc tgctggtaact
241 catctctttc aaggtcaaca cggagctcaa gacagtcaat aactacttcc tgctgagcct
301 ggctgtgct gacctcatca tcggtacctt ctcctagaac ctctatacca cgtacctgct
361 catggggcac tgggtctctg gcacgtctgg ttgtgacctc tggctggccc tggactatgt
421 ggccagcaat gccctccgtca tgaatctgct gctcatcagc tttgaccgct acttctccgt
481 gactcggccc ctgagctacc gtgccaagcg cacaccccgc cgggcagctc tgatgatcgg
541 cctggcctgg ctggttttct ttgtgctctg ggccccagcc atcctcttct ggcagtacct
601 ggtaggggag cggacgatgc tagctgggca gtgctacatc cagtctctct cccagcccat
661 catcaccttt ggcacagcca tggctgcctt ctacctcct gtcacagtca tgtgcacgct
721 ctactggcgc atctaccggg agacagagaa ccgagcacgg gagctggcag cccttcaggg
781 ctccgagacg ccaggcaaag ggggtggcag cagcagcagc tcagagaggt ctcagccagg
841 ggctgagggc tcaccagaga ctctccagc cegctgctgt cgtgctgcc gggccccag
901 gctgctgag gccctacagc ggaaggaaga agaggaagag gacgaaggct ccatggagtc
961 cctcacatcc tcagagggag aggagcctgg ctccgaagtg gtgatcaaga tgccaatggt
1021 ggacccccag gcacaggccc ccaccaagca gcccccacgg agctcccaa atacagtcaa
1081 gagggcgact aagaaagggc gtgatcgagc tggcaagggc cagaagcccc gtggaaagga
1141 gcagctggcc aagcggaaga cctctcgtc ggtcaaggag aagaaggcgg ctccgaccct
1201 gactgcccac ctctggcct tcctctcac ctggacaccg tacaacatca tgggtgctgt
1261 gtccaccttc tgcaaggact gtgttccga gacctgtgg gagctgggct actggctgtg
1321 ctacgtcaac agcaccatca acccctatgt ctacgcactc tgcaacaaag ccttcggga
1381 cacctttcgc ctgctgctgc ttgtccgtg ggacaagaga cgtggcgca agatcccaa
1441 gcgccctggc tccgtgcacc gactccctc ccgcaatgc tgatagtcct ctctcctgca
1501 tccctccacc ccagtcctccg gg

(2) INFORMATION FOR SEQ ID NO:2590:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1569 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2590

1 attttaaac aatgtttata ttatgtttgt taattttatt ctatttccct gcaggtttta
61 atgtttattt gctacttggc tactgattag agaacgcaaa atgaataact caacaaactc
121 ctctaacaat agcctggctc ttacaagtcc ttataagaca tttgaagtgg tgtttattgt
181 cctgggtgct ggatccctca gtttgggtgac cattatcggg aacatccctag tcatgggttc
241 cattaaagtc aaccggccacc tccagaccgt caacaattac tttttattca gcttggcctg
301 tgcctgacctt atcatagtg ttttctccat gaacttgtac accctctaca ctgtgattgg
361 ttactggcct ttgggacctg tgggtgtgta cetttggcta gccctggact atgtggtcag
421 caatgcctca gttatgaatc tgctcatcat cagctttgac aggtacttct gtgtcacaaa
481 acctctgacc taccagtc aagcgaccac aaaaatggca ggtatgatga ttgcagctgc
541 ctgggtcctc tctttcatcc tctgggctcc agccattctc ttctggcagt tcattgtagg
601 ggtgagaact gtggaggatg gggagtgcata cattcagttt ttttccaatg ctgctgtcac
661 ctttggtagc gctattgcag ccttctattt gccagtgatc atcatgactg tgctatattg
721 gcacatatcc cgagccagca agagcaggat aaagaaggac aagaaggagc ctgttgccaa
781 ccaagacccc gtttctccaa gtctggtaca aggaaggata gtgaagccaa acaataacaa
841 catgcccagc agtgacgatg gcctggagca caacaaaatc cagaatggca aagccccag
901 ggatcctgtg actgaaaact gtgttcaggg agaggagaag gagagctcca atgactccac
961 ctcagtcagt gctgttgctt ctaatatgag agatgatgaa ataaccagg atgaaaacac
1021 agtttccact tccctgggcc attccaaaga tgagaactct aagcaaactc gcatcagaat
1081 tggcaccagg accccaaaaa gtgactcatg taccccaact aataaccaccg tggaggtagt
1141 ggggtcttca ggtcagaatg gagatgaaa gcagaatatt gtagcccgca agattgtgaa
1201 gatgactaag cagcctgcaa aaaagaagcc tctccttcc cgggaaaaa aagtcaccag
1261 gacaatcttg gctattctgt tggctttcat catcacttgg gccccataca atgtcatggt
1321 gctcattaac accttttctg caccttgcat ccccaacact gtgtggacaa ttggttactg
1381 gctttgttac atcaacagca ctatcaaccc tgctgctat gcactttgca atgccacctt
1441 caagaagacc tttaaacacc ttctcatgtg tcattataag aacataggcg ctacaaggta
1501 aaatatcttt gaaaaagata gaagggtggc aaggggagct tgagaagaat aaaagggata
1561 aacgagctc

(2) INFORMATION FOR SEQ ID NO:2591:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1703 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2591

```
1 tccagtgtac ctccagatga ctccccatt cctcctgtga gttcatgctt ttctctcccc
61 ttctctccca gacacggcct acccaccctt ggcaaccaac atggccaact tcacacctgt
121 caatggcagc tggggcaatc agtccgtgcg cctgggtcacg tcatcatccc acaatcgcta
181 tgagacgggtg gaaatgggtc tcattgccac agtgacaggc tccctgagcc tgggtactgt
241 cgtggggcaac atcctgggtga tgcgtgccat caaggtaaac aggcagctgc agacagtcaa
301 caactacttc ctcttcagcc tggcgtgtgc tgatctcacc ataggcgctt tctccatgaa
361 cctctacacc gtgtacatca tcaagggcta ctggcccttg ggcgcctggg tctgcgacct
421 gtggtgtggc ctggactacg tgggtgagcaa cgcctccgtc atgaaccttc tcatcatcag
481 ctttgaccgc tacttctgcg tcaccaagcc tctcacctac cctgcccggc gcaccaccaa
541 gatggcaggc ctcatgattg ctgctgcctg ggtactgtcc ttcgtgctct gggcgcctgc
601 catcttgctt tggcagtttg tgggtggtaa gcggacggtg cccgacaacc agtgcttcat
661 ccagtctctg tccaaccagc cagtgcctt tggcacagcc attgctgcct tctacctgcc
721 tgtggtcacc atgacgggtg tgtacatcca catctccttg gccagtcgca gccgagtgca
781 caagcacccg cccgagggcc cgaaggagaa gaaagccaag acgctggcct tctcaagag
841 ccactaatg aagcagagcg tcaagaagcc cccgcccggg gaggccgccc gggaggagct
901 gcgcaatggc aagctggagg agccccccc gccagcgtg ccaccgccac cgcgcccctg
961 ggctgataag gacacttcca atgagtcagg ctcaggcagt gccaccacga acaccaagga
1021 acgcccagcc acagagctgt ccaccacaga ggcaccacg cccgcatatg ccgcccctcc
1081 cctgcagccg cgggccctca acccagcctc cagatggtcc aagatccaga ttgtgacgaa
1141 gcagacaggc aatgagtggtg tgacagccat tgagattgtg cctgccacgc cggctggcat
1201 gcgcccctgc gccaacgtgg cccgcaagtt cgcacgcatc gctcgcaacc aggtgcgcaa
1261 gaagcggcag atggcggccc gggagcgcaa agtgacacga acgatctttg ccatctgtct
1321 agccttcacc ctacactgga cgcctacaa cgtcatgtgc ctggtgaaca ccttctgcca
1381 gagtgcacc cctgacacgg tgtggtccat tggctactgg ctctgctacg tcaacagcac
1441 catcaaccct gcctgctatg ctctgtgcaa cgcacacctt aaaaagacct tccggcacct
1501 gctgctgtgc cagtatcgga acatcgccac tgccaggtag gcaggcagga gtgccctagg
1561 aggtgctggt gttgcgtgcg tgtgctgggg ggaccacacg gctcacttgc tgtggggaag
1621 agttgcaggc accattctgc gttcacgttt gctgaggagg aagttcagaa gaggctctgt
1681 ggctgcattc agagaccaga tct
```

(2) INFORMATION FOR SEQ ID NO:2592:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1913 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2592

```
1 tcttttaacg tatgtaatgc aaagaacaaa caaataaagg cagaaatttt tctaactctg
61 tctcttctct ctttccccca gactatgtca gagagtcaca atgaccttgc acaataacag
121 tacaacctcg cctttgtttc caaacatcag ctctccttgg atacacagcc cctccgatgc
181 agggctgccc ccgggaaccg tcaactatct cggcagctac aatgtttctc gagcagctgg
241 caatttctcc tctccagacg gtaccaccga tgacctctg ggaggtcata ccgtctggca
301 agtgggtctc atcgctttct taacgggcat cctggccttg gtgaccatca tcggcaacat
361 cctggtaatt gtgtcattta aggtcaacaa gcagctgaag acggtcaaca actacttctt
421 cttaagcctg gcctgtgccg atctgattat cggggtcatt tcaatgaatc tgtttacgac
481 ctacatcatc atgaatcgat gggccttagg gaacttggcc tgtgacctct ggcttgccat
541 tgactacgta gccagcaatg cctctgttat gaatcttctg gtcacagct ttgacagata
601 cttttccatc acgaggccgc tcacgtaccg agccaaacga acaacaaaga gagccggtgt
661 gatgatcggt ctggcttggg tcatctcctt tgtccttttg gctcctgcca tcttgttctg
721 gcaatacttt gttggaaaaga gaactgtgcc tccgggagag tgcttcattc agttctcag
781 tgagccacc attacttttg gcacagccat cgtgctttt tatatgctg tcaccattat
841 gactatttta tactggagga tctataagga aactgaaaag cgtaccaaag agcttgctgg
901 cctgcaagcc tctgggacag aggcagagac agaaaacttt gtccacccca cgggcagttc
961 tcgaagctgc agcagttacg aacttcaaca gcaaagcatg aaacgctcca acaggaggaa
1021 gtatggccgc tgccacttct ggttcacaac caagagctgg aaaccagct ccgagcagat
1081 ggaccaagac cacagcagca gtgacagttg gaacaacaat gatgctgctg cctccctgga
1141 gaactccgcc tctcctcagc aggaggacat tggtctccgag acgagagcca tctactccat
```

1201 cgtgctcaag cttccgggtc acagcaccat cctcaactcc accaagttac cctcatcgga
1261 caacctgcag gtgcctgagg aggagctggg gatggtggac ttggagagga aagccgacaa
1321 gctgcaggcc cagaagagcg tggacgatgg aggcagtttt ccaaaaagct tctccaagct
1381 tcccatccag cttagagtcag ccgtggacac agctaagact tctgacgtca actcctcagt
1441 ggtaagagc acggccactc tacctctgtc cttcaaggaa gccactctgg ccaagagggt
1501 tgctctgaag accagaagtc agatcactaa gcggaaaagg atgtccctgg tcaaggagaa
1561 gaaagcggcc cagaccctca gtgcgatctt gcttgccctc atcatcactt ggaccaccata
1621 caacatcatg gttctggtga acaccttttg tgacagctgc ataccacaaa ccttttggaa
1681 tctgggctac tggtctgtgt acatcaacag caccgtgaac cccgtgtgct atgtctgtgt
1741 caacaaaaca ttcagaacca ctttcaagat gctgctgtgt tgccagtgtg acaaaaaaaa
1801 gaggcgcaag cagcagtacc agcagagaca gtcggtcatt tttcacaagc gcgcaccgca
1861 gcaggccctg tagaatgagg ttgtatcaat agcagtgaac aaacgacaca tca

(2) INFORMATION FOR SEQ ID NO:2593:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6707 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2593

1 agcccatgtc ctctcttttc aggtgatgac tttccctga ggaagccctg tagcgtgcct
61 ggaggaaagg gctctccaac ccagcccaca cctagccacc atgaacactt cagccccacc
121 tgctgtcagc cccaacatca cgtcctggc accaggaaag ggtccctggc aagtggcctt
181 cattgggata ccacagggcc tctgtcgct agccacagt acaggcaacc tgctggtact
241 catctcttcc aagggtcaaca cggagctcaa gacagtcaat aactacttcc tgctgagcct
301 ggctgtgtgt gacctcatca tcggtacctt ctccatgaac ctctatacca cgtacctgtt
361 catggggcac tgggctctgg gcacgtggc ttgtgacctc tggctggccc tggactatgt
421 ggccagcaat gcctccgtca tgaatctgct gctcatcagc tttagccgtt acttctccgt
481 gactcggccc ctgagctacc gtgccaagcg cacaccccgc cgggcagctc tgatgatcgg
541 cctggcctgg ctggtttcct ttgtgctctg ggccccagcc atcctcttct ggcagtacct
601 ggtaggggag cggacgatgc tagctgggca gtgtacatc cagttcctct cccagcccat
661 catcaccttt ggcacagcca tggctgcctt ctacctccct gtcacagtca tgtgcacgct
721 ctactggcgc atctaccggg agacagagaa ccgagcacgg gagctggcag cccttcaggg
781 ctccgagacg ccaggcaaaag ggggtggcag cagcagcagc tcagagaggt ctcagccagg
841 ggctgagggc tcaccagaga ctctccagg ccgctgctgt cgtgctgcc gggccccag
901 gctgctgcag gcctacagct ggaaggaaag agaggaaag gacgaaggct ccatggagtc
961 cctcacatcc tcagagggag aggagcctgg ctccgaagtg gtgatcaaga tgccaatggt
1021 ggaccccagc gcacaggccc ccaccaagca gccccacgg agctcccaa atacagtcaa
1081 gaggccgact aagaaaaggc gtgatcgagc tggcaaggcc cagaagcccc gtggaaggga
1141 gcagctggcc aagcgggaaga cttctcgtc ggtcaaggag aagaaggcgg ctccggacct
1201 gagtggcatc ctcttgccct tcactctcac ctggacaccg tacaacatca tgggtgctgt
1261 gtccaccttc tgcaaggact gtgttcccga gacctgtgg gagctgggct actggctgtg
1321 ctactgtcaac agcaccatca accccatgtg ctacgcactc tgcaacaaag ccttccggga
1381 cacttttgcg ctgctgtgct tttgccgctg ggacaagaga cgtggcgca agatcccaa
1441 gcgccttgcc tccgtgcacc gcactccctc ccgccaatgc tgatagtccc ctctcctgca
1501 tccctccacc ccagtcctccg gg
1 attttaaaacc aatgtttata ttatgtttgt taattttatt ctatttccct gcaggtttaa
61 atgtttatatt gctacttggc tactgattag agaacgcaaa atgaataact caacaaactc
121 ctctaacaat agcctggctc ttacaagtcc ttataagaca tttgaagtgg tgtttattgt
181 cctgggtggc ggatccctca gtttgggtgac cattatcggg aacatcctag tcatggtttc
241 cattaaagtc aaccgccacc tcagaccgt caacaattac tttttattca gcttggcctg
301 tgctgacctt atcatagtg ttttctccat gaacttgtac accctctaca ctgtgattgg
361 ttaactggcct ttgggacctg tgggtgtgta cctttggcta gccctggact atgtggctag
421 caatgcctca gttatgaatc tgctcatcat cagctttgac aggtacttct gtgtcacaaa
481 acctctgacc taccagtcga agcggaccac aaaaatggca ggtatgatga ttgcagctgc
541 ctgggtcctc tctttcatcc tctgggctcc agccattctc tttctggcag tcatgtagg
601 ggtgagaact gtggaggatg gggagtgcta cattcagttt ttttccaatg ctgctgtcac
661 ctttggtagc gctattgcag ccttctattt gccagtgatc atcatgactg tgctatatgt
721 gcacatatcc cgagccagca agagcaggat aaagaaggac aagaaggagc ctgttgccaa
781 ccaagacccc gtttctccaa gtctggtaca aggaaggata gtgaagccaa acaataacaa
841 catgcccagc agtgacgatg gcctggagca caacaaaatc cagaatggca aagccccag
901 ggatcctgtg actgaaaact gtgttcaggg agaggagaag gagagctcca atgactccac

961 ctcagtcagt gctgttgccct ctaatatgag agatgatgaa ataaccacag atgaaaacac
1021 agttttccact tccttgggcc attccaaaga tgagaactct aagcaaacat gcatcagaat
1081 tggcaccacag accccaaaaa gtgactcatg taccccaact aataccaccg tggaggtagt
1141 ggggtcttca ggtcagaatg gagatgaaaa gcagaatatt gttagcccgca agattgtgaa
1201 gatgactaag cagcctgcaa aaaagaagcc tcctccttcc cgggaaaaaga aagtcaccag
1261 gacaatcttg gctattctgt tggctttcat catcacttgg gcccataca atgtcatggt
1321 gctcattaac acctttttgtg caccttgcac ccccaacact gtgtggacaa ttggttactg
1381 gctttgttac atcaacagca ctatcaaccc tgctgtctat gcacttttga atgccacctt
1441 caagaagacc tttaaacacc ttctcatgtg tcattataag aacataggcg ctacaaggta
1501 aaatatcttt gaaaaagata gaaggtgggc aaggggagct tgagaagaat aaaagggata
1561 aacgagctc
1 tccagtgatg ctcagatga ctcctccatt cctcctgta gttcatgctt ttctctcccc
61 ttctctccca gacacggcct acccaccct ggcaaccaac atggccaact tcacacctgt
121 caatggcagc tcgggcaatc agtccgtgag cctgggtcag tcatcatccc acaatcgcta
181 tgagacggtg gaaatgggtc tcattgccac agtgacaggc tccttgagcc tggtagctgt
241 cgtgggcaac atcctgggtg tgetgtccat caaggtcaac aggcagctgc agacagtcaa
301 caactacttc ctcttcagcc tggcgtgtgc tgatctcacc ataggcgctt tctccatgaa
361 cctctacacc gtgtacatca tcaagggtca ctggccctcg ggcgcctggt tctgcagctt
421 gtggtggtgc ctggactacg tggtagacaa cgcctccgtc atgaaccttc tcacatcag
481 ctttgaccgc tacttctgag tcaccaagcc tctcacctac cctgcccggc gcaccacca
541 gatggcaggc ctcatgattg ctgctgctcg ggtactgtcc ttctgtctct gggcgctg
601 catcttgttc tggcagtttg tgggtggtaa gcggacggtg cccgacaacc agtgcttcat
661 ccagttctcg tccaacccag cagtgcctt tggcacagcc attgctgctt tctacctg
721 tgtggtcacc atgacgggtg tgtacatcca catctccctg gccagtgcca gccagtgcca
781 caagcaccgg cccgagggcc cgaaggagaa gaaagccaag acgctggcct tctcaagag
841 cccactaatg aagcagagcg tcaagaagcc cccgcccggg gaggcggccc gggagggagt
901 gcgcaatggc aagctggagg agggccccc gccagcgtg ccaccgccac cgcgcccgt
961 ggctgataag gacacttcca atgagtcagg ctacggcagt gccaccaga acaccaggga
1021 acgcccagcc acagagctgt ccaccacaga gccaccacg cccgccatgc ccgccctcc
1081 cctgcagccg cggggccctca acccagcctc cagatgggtc aagatccaga ttgtgacgaa
1141 gcagacaggc aatgagtggt tgacagccat tgagattgtg cctgccacgc cggctggcat
1201 cgcgccctgc gccaacgtgg cccgcaagtt cggcagcacc gctcgaacc aggtgcgcaa
1261 gaagcggcag atggcgccgc gggagcgcaa agtgacacga acgatctttg ccattctgct
1321 agccttcacc ctacactgga cgcctacaa cgtcatggtc ctggtgaaca ccttctgcca
1381 gagctgcacc cctgacacgg tgtggtccat tggctactgg ctctgtacg tcaacagcac
1441 catcaacctt gctgtctatg ctctgtgcaa cgcacacctt aaaaagacct tccggacctt
1501 gctgctgtgc cagtatcgga acatcgccac tggcaggtag gcaggcagga gtgcctagg
1561 aggtgctggt gttgcgtgag tgtgctggg ggaccacacg gctcacttgc tgtggggaag
1621 agttgcaggc accattctgc gttcacgttt gctgaggagg aagttcagaa gaggtctgtg
1681 ggctgcattc agagaccaga tct
1 tcttttaacg tatgtaatgc aaagaacaaa caataaaagg cagaaatttt tctaactctg
61 tctcttctct ctttcccca gactatgtca gagagtcaca atgacctgac acaataacag
121 tacaacctcg cttttgttcc caaacatcag ctctcctggt ataccagacc cctccgatgc
181 agggctgccc cggggaaccg tcaactattt cggcagctac aatgtttctc gagcagctgg
241 caatttctcc tctccagacg gtaccaccga tgacctctg ggaggtcata ccgtctggca
301 agtgggtctc atcgctttct taacgggcat cctggccttg gtgacctca tcggcaacat
361 cctggtaatt gtgtcattta aggtcaacaa gcagctgaag acggtcaaca actacttctt
421 cttaagcctg gctgtgccc atctgattat cggggtcatt tcaatgaatc tgtttacgac
481 ctacatcatc atgaatcgat gggccttagg gaacttggcc tgtgacctct ggcttgccat
541 tgactacgta gccagcaatg cctctgttat gaacttctg gtcacagct ttgacagata
601 cttttccacc acgaggccgc tcacgtaccg agccaaacga acaacaaaga gagccggtgt
661 gatgatcggt ctggcctggg tcatctcctt tgtcctttg gctcctgcca tcttgttctg
721 gcaatacttt gttggaaaga gaactgtgcc tccgggagag tgccttcttc agttcctcag
781 tgagcccacc attacttttg gcacagccat cgtgctttt tatatgcctg tcaccattat
841 gactatttta tactggagga tctataagga aactgaaaag cgtaccaaag agcttgcctg
901 cctgcaagcc tctgggacag aggcagagac agaaaacttt gtccaccca cggcagttc
961 tgaagctgc agcagttacg aacttcaaca gcaaaagcatg aaacgtcca acaggaggaa
1021 gtatggccgc tgccacttct ggttcacaac caagagctgg aaaccagct ccgagcagat
1081 ggaccaagac cacagcagca gtgacagttg gaacaacaat gatgctgctg cctccctgga
1141 gaactccgcc tctccgacg aggaggacat tggctccgag acgagagcca tctactccat
1201 cgtgctcaag ctccggggtc acagcaccat cctcaactcc accaagttac cctcatcgga
1261 caacctgcag gtgcctgagg aggagctggg gatggtggac ttggagagga aagccgacaa

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1321 gctgcaggcc cagaagagcg tggacgatgg aggcagtttt ccaaaaagct tctccaagct
1381 tcccatccag cttagagtcag ccgtggacac agctaagact tctgacgtca actcctcagt
1441 gggtaagagc acggccactc tacctctgtc cttcaaggaa gccactctgg ccaagagggt
1501 tgctctgaag accagaagtc agatcactaa gcggaaaaag atgtccctgg tcaaggagaa
1561 gaaagcggcc cagaccctca gtgcgatctt gcttgccttc atcatcactt ggaccccata
1621 caacatcatg gttctgggtg acaccttttg tgacagctgc ataccctaaa ccttttggaa
1681 tctgggctac ttgctgtgct acatcaacag caccgtgaac cccgtgtgct atgtctgtg
1741 caacaaaaca ttcaaacca ctttcaagat gctgctgctg tgccagtgtg acaaaaaaaa
1801 gaggcgcaag cagcagtacc agcagagaca gtccgtcatt tttcacaagc gcgcacccga
1861 gcaggccttg tagaatgagg ttgtatcaat agcagtgaac aaacgacaca tca

```

(2) INFORMATION FOR SEQ ID NO:2594:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1230 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2594

```

1 atggataacg tctcccggg gactcagac ctctcccaa acatctccac taacacctcg
61 gaacccaatc agttcgtgca accagcctgg caaattgtcc tttgggcagc tgcttacacg
121 gtcatgtggt tgacctctgt ggtgggcaac gtggtagtga tgtggatcat cttagccac
181 aaaagaatga ggacagtgc gaactatctt ctgggtgaac tggccttcgc ggaggcctcc
241 atggctgcat tcaatacagt ggtgaacttc acctatgctg tccacaacga atggtactac
301 ggctgttctt actgcaagtt ccacaacttc ttcccatcgc ccgcttgctt cgccagtatc
361 tactccatga cggctgtggc ctttgatagg tacatggcca tcatacatcc cctccagccc
421 cggctgtcag ccacagccac caaagtggtc atctgtgtca tctgggtcct ggctctcctg
481 ctggccttcc cccagggcta ctactcaacc acagagacca tgccagcagc agtctgtgtg
541 atgatcgaat ggccagagca tccgaacaag atttatgaga aagtgtacca catctgtgtg
601 actgtgtgta tctacttctt cccctgtctg gtgattggct atgcatacac catagtggga
661 atcacactat gggccagtga gatccccggg gactcctctg accgctacca cgagcaagtc
721 tctgccaaagc gcaagtggtt caaaatgatg attgtcgtgg tgtgcacctt cgccatctgc
781 tggctgcctt tccacatctt ctctctctgc ccctacatca acccagatct ctacctgaag
841 aagtttatcc agcaggctta cctggccatc atgtggctgg ccatgagctc caccatgtac
901 aaccccatca tctactgctg cctcaatgac aggttccgtc tgggcttcaa gcatgccttc
961 cgggtgctgc ccttcacag cgccggcgac tatgaggggc tggaaatgaa atccacccgg
1021 tatctccaga cccagggcag tgtgtacaaa gtcagccgcc tggagaccac catctccaca
1081 gtggtggggg cccacgagga ggagccagag gacggcccca aggccacacc ctgcctcctg
1141 gacctgacct ccaactgctc ttcacgaagt gactccaaga ccatgacaga gagcttcagc
1201 ttctctccca atgtgctctc ctagggatcc

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(2) INFORMATION FOR SEQ ID NO:2595:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1755 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2595

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1 ctattgcagt atctttcagc ttccagttct atctgaagac cccggcacca aagtgaccag
61 gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg
121 tccgggactg cagaccgtg gcgatggcca ctctccagc agcagaaacc tggatagacg
181 ggggtggagg cgtgggtgca gacgccgtga acctgaccgc ctgcctagct gccggggcgg
241 ccacgggggc agttgagact ggtgggtgct aactgctgga ccaagctggc aacctctcct
301 cctccccttc cgcgctggga ctgcctgtgg ctccccgc gccctccag cctggggcca
361 acctaccaa ccagttctgt cagccgtcct ggcgcacgc gctctggtcc ctggcgtatg
421 gtgtggtggt ggcagtggca gtttgggaa atctcatcgt catctggatc atcctggccc
481 acaagcgcac gaggactgtc accaactact tcttgtgaa cctggcttcc tccgacgctc
541 ccatggccgc cttcaacacg ttgtcaatt tcatctacgc gcttcatagc gactggtact
601 ttggcgccaa ctactgccg ttccagaact tctttctat cagagctgtg ttcgccagca
661 tctactccat cagggccatt gcggtggaca ggtatatggc tattattgat cccttgaaac
721 ccagactgtc tgctacagca accaagattg tcattggaag tatttgatt ctgacatttc
781 tacttgctt ccctcagtg ctttattcca aaacaaagc catgccaggc cgtactctct
841 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta
901 tactggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta

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961 ctctctgggg aggagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaagg
1021 ccaaaagaaa ggttgtcaaa atgatgatta ttgttgtcat gacatttgct atctgctggc
1081 tgcctatca tatttacttc attctactg caatctatca acaactaaat agatggaat
1141 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
1201 ccatcatcta ctgctgtctg aataaaagat ttcgagctgg ctccaagaga gcatttcgct
1261 ggtgtccttt catcaaagt tccagctatg atgagctaga gctcaagacc accaggttct
1321 atccaaaccg gcaaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt
1381 ttgaccccaa cgtgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag
1441 acccaagttt caatggctgc tctgcagga attccaaatc tgcctcggcc acttcaagtt
1501 tcataagctc accctatacc tctgtggatg aatattctta attccatttc ctgaggtaaa
1561 agattagtgt gagaccatca tgggtccagt ctaggacccc attctcctat ttatcagtc
1621 tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga
1681 aaggtagtgt ataaatgtga caaagacact aataacatgt tagcctccac ccaaaataaa
1741 atgggcttta aattt

(2) INFORMATION FOR SEQ ID NO:2596:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1197 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2596

1 atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc
61 acgggcatca cagccttctc catgccagc tggcagctgg cactgtgggc accagcctac
121 ctggccctgg tgcgtgtggc cgtgacgggt aatgccatcg tcatctggat catcctggcc
181 catcggagga tgcgcacagt caccaactac ttcacgtca atctggcgtt ggctgacctc
241 tgcattgctg ccttcaatgc cgccttcaac tttgtctatg ccagccacaa catctggtac
301 ttgggctgtg ccttctgcta cttccagaac ctcttcccca tcacagccat gtttgtcage
361 atctactcca tgaccgccaat tgctgccgac aggtacatgg ccactgtcca cccctccag
421 cctcggcttt cagctcccag caccaaggcg gttattgctg gcactgtggt ggtggtcttc
481 gccctggcct cccctcagtg cttctactcc accgtcacca tggaccaggg tggcaccag
541 tgcgtggtgg cctggcccga agacagcggg ggcaagacgc tccctctgta ccacctcgtg
601 gtgatcgccc tcactactt cctgccgctc gcggtgatgt ttgtagccta cagcgtcatc
661 ggcctcacgc tctggaggcg cgcagtgccc ggacatcagg cgcacgggtgc caacctccgc
721 catctgcagg ccaagaagaa gtttgtgaag accatggtgc tgggtggtgt gacgtttgcc
781 atctgctggc tgcctacca cctctacttc atcctgggca gcttccagga ggacatctac
841 tgcacaaagt tcacccagca agtctacctg gcactcttct ggttgcccat gagctctacc
901 atgtacaatc ccatcatcta ctgctgtctc aaccacaggt ttcgctctgg gttccggctt
961 gccttccgct gctgcccatt ggtcacacc accaaggaag ataagctcga gctgactccc
1021 acgacctccc tctccacgag agtcaacagg tgtcacacta aggagacttt gttcatggct
1081 ggggacacag cccctccga ggctaccagt ggggaggcgg ggcgtcccca ggatggatca
1141 gggctatggt ttgggtatgg tttgcttgcc cccacaaaa ctcattgtga aatttga

(2) INFORMATION FOR SEQ ID NO:2597:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4182 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2597

1 atggataacg tcctcccgtt ggactcagac ctctcccaa acatctccac taacacctcg
61 gaacccaatc agttcgtgca accagcctgg caaattgtcc tttgggcagc tgcttacacg
121 gtcattgtgg tgacctctgt ggtgggcaac gtggtagtga tgtggatcat cttagccac
181 aaaagaatga ggacagtgc gaactatttt ctggtgaacc tggccttcgc ggaggcctcc
241 atggctgcat tcaatacagt ggtgaacttc acctatgctg tccacaacga atggtactac
301 ggctgtttct actgcaagt ccacaacttc tccccatcg ccgcttgctt cgccagatc
361 tactccatga cggctgtggc ctttgatagg tacatggcca tcatacatcc cctccagccc
421 cggtgtcag ccacagccac caaagtgttc atctgtgtca tctgggtcct ggctctcctg
481 ctggccttcc cccagggcta ctactcaacc acagagacca tggccagcag agtcgtgtgc
541 atgatcgaat ggccagagca tccgaacaag atttatgaga aagtgtacca catctgtgtg
601 actgtgctga tctacttct cccctgctg gtgattggct atgcatacac catagtggga
661 atcacactat gggccagtga gatccccggg gactcctctg accgtacca cgagcaagtc
721 tctgccaaag gcaaggtggt caaatgatg attgtcgtgg tgtgcacctt cgccatctgc

781 tggctgcctt tccacatctt cttcctcctg cctacatca acccagatct ctacctgaag
841 aagtttatcc agcagggtcta cctggccatc atgtggctgg ccatgagctc caccatgtac
901 aaccccatca tctactgctg cctcaatgac aggttccgctc tgggcttcaa gcatgccttc
961 cgggtgetgcc ccttcatcag cgcggcgac tatgaggggc tggaaatgaa atccaccggg
1021 tatctccaga cccaggggcag tgtgtacaaa gtcagccgcc tggagaccac catctccaca
1081 gtggtggggg cccacgagga ggagccagag gacggcccca aggccacacc ctgcctcctg
1141 gacctgacct ccaactgctc ttcacgaagt gactccaaga ccatgacaga gagcttcagc
1201 ttctcctcca atgtgctctc ctagggatcc
1 ctattgcagt atctttcagc ttccagtctt atctgaagac cccggcacca aagtgaccag
61 gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtggggagg
121 tccgggactg cagaccggtg gcatgagcca ctctcccagc agcagaaacc tggatagacg
181 ggggtggagg cgtgggtgca gacgcccgtga acctgaccgc ctgctagctc gccggggcgg
241 ccacggggggc agttgagact ggggtggctgc aactgctgga ccaagctggc aacctctcct
301 cctccccttc cgcgctggga ctgctgtggt cttccccgcg gccctcccag cctggggcca
361 acctcaccaa ccagtctcgt cagccgctcct ggcgcatcgc gctctgggtc ctggcgtatg
421 gtgtggtggt ggcagtggca gttttgggaa atctcatcgt catctggatc atcctggccc
481 acaagcgcag gaggactgtc accaactact tcttggtgaa cctggctttc tccgacgect
541 ccatggccgc cttcaacacg ttgtcaatt tcatctacgc gcttcatagc gagtgggtact
601 ttggcgccaa ctactgccgc ttccagaact tctttcctat cacagctgtg ttccgacga
661 tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat cccttgaaac
721 ccagactgtc tgcctacagca accaagattg tcattggaag tatttggatt ctgacatttc
781 tacttgcctt cctcagtggt ctttattcca aaaccaaagt catgccaggc cgtactctct
841 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta
901 tactggtgta ctgtttccca ttgtcatca tgggtattac atacaccatt gttggaatta
961 ctctctgggg agagaaaac ccaggagata cctgtgacaa gtatcatgag cagctaaagg
1021 ccaaaagaaa ggttgcataa atgatgatta ttgttgcac gacatttgct atctgtggc
1081 tgcctatca tatttacttc attctcactg caatctatca acaactaaat agatggaaat
1141 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
1201 ccatcatcta ctgctgtctg aataaaaagat ttccagctgg cttcaagaga gcatttcgct
1261 ggtgtccttt catcaaagt ttccagctatg atgagctaga gctcaagacc accagggttc
1321 atccaaaaccg gcaaaagcagt atgtacaccg tgaccagaat ggagtcctat acagtcgtgt
1381 ttgaccccaa cgtatgcagc accaccaggt ccagtcggaa gaaaagagca acgccaagag
1441 acccaagttt caatggctgc tctgcagga attccaaatc tgccctccgc acttcaagtt
1501 tcataagctc accctatacc tctgtggatg aatattctta attccatttc ctgaggtaaa
1561 agattagtgt gagaccatca tgggtgccagt ctaggacccc attctcctat ttatcagtc
1621 tgtcctatat accctctaga aacagaaaagc aatttttagg cagctatggt caaattgaga
1681 aaggtagtgt ataaatgtga caaagacact aataacatgt tagcctccac caaaaataaa
1741 atgggcttta aattt
1 atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc
61 acgggcatca cagccttctc catgcccagc tggcagctgg cactgtgggc accagcctac
121 ctggccctgg tctgtgtggc cgtgacgggt aatgccatcg tcatctggat catcctggcc
181 catcggagga tgcgcacagt caccaactac ttcactgctc atctggcgct ggctgacctc
241 tgcattggctg ccttcaatgc cgccttcaac tttgtctatg ccagccacaa catctggtac
301 tttggccgtg ccttctgcta cttccagaac ctcttcccca tcacagccat gttgtcagc
361 atctactcca tgaccgccat tgcgtccgac aggtacatgg ccacgttcca ccccttccag
421 cctcgctttt cagctccag caccagggcg gttattgctg gcatctggct ggtggctctc
481 gccctggcct cccctcagtg cttctactcc accgtcacca tggaccaggg tgccaccaag
541 tgcgtgggtg cctggcccga agacagcggg ggcaagacgc tccctcgtga ccacctcgtg
601 gtgatgcgcc tcatctactt cctgcccgtc gcggtgatgt ttgtagccta cagcgtcatc
661 ggccctacgc tctggaggcg cgcagtgcc ggacatcagg cgcacgggtg caacctccgc
721 catctgcagg ccaagaagaa gtttgtgaag accatgggtc tgggtgggtg gacgtttgcc
781 atctgctggc tgccctacca cctctacttc atcctgggca gcttccagga ggacatctac
841 tgccacaagt tcacccagca agtctacctg gactcttct ggttggccat gagctctacc
901 atgtacaatc ccatcatcta ctgctgtctc aaccacaggt ttcgctctggt gttccggctt
961 gccttccgct gctgcccatt ggtcacaccc accaaggaa atagctcga gctgactccc
1021 acgacctccc cctccacgag agtcacacag tgcacacta aggagacttt gttcatggct
1081 ggggacacag cccctccga ggctaccagt ggggaggcgg ggcgtcccca ggatggatca
1141 ggctatggtg ttgggtatgg tttgcttgcc ccacacaaa ctcagtgtga aatttga

(2) INFORMATION FOR SEQ ID NO:2598:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1560 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2598

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1  ctccataagg  cacaaacttt  cagagacagc  agagcacaca  agcttctagg  acaagagcca
61  ggaagaaacc  accggaagga  accatctcac  tgtgtgtaaa  catgacttcc  aagctggccg
121  tggctctctt  ggcagccttc  ctgatttctg  cagctctgtg  tgaagggtgc  gttttgccaa
181  ggagtgtctaa  agaacttaga  tgtcagtgca  taaagacata  ctccaaacct  ttccacccca
241  aatttatcaa  agaactgaga  gtgattgaga  gtggaccaca  ctgcgccaac  acagaatta
301  ttgtaaagct  ttctgatgga  agagagctct  gtctggaccc  caaggaaaac  tgggtgcaga
361  ggggtgtgga  gaagtttttg  aagagggtcg  agaattcata  aaaaaattca  ttctctgtgg
421  tatccaagaa  tcagtgaaga  tgccagtga  acttcaagca  aatctacttc  aacacttcat
481  gtattgtgtg  ggtctgttgt  aggggttgcca  gatgcaatac  aagattcctg  gttaaatttg
541  aatttcagta  aacaatgaat  agtttttcat  tgtaccatga  aatatccaga  acatacttat
601  atgtaaaagta  ttatttatatt  gaatctacaa  aaaacaacaa  ataattttta  aatataagga
661  ttttctaga  tattgcacgg  gagaatatac  aaatagcaaa  attgggccaa  gggccaagag
721  aatatccgaa  ctttaatttc  aggaattgaa  tgggtttgct  agaattgtgat  atttgaagca
781  tcacataaaa  atgatgggac  aataaatttt  gccataaagt  caaatttagc  tggaaatcct
841  ggattttttt  ctgttaaatc  tggcaaccct  agtctgctag  ccaggatcca  caagtccttg
901  ttccactgtg  ccttggtttc  tcctttattt  ctaagtggaa  aaagtattag  ccaccatttg
961  acctcacagt  gatgtgtgga  ggacatgtgg  aagcacttta  agttttttca  tcataacata
1021  aattattttc  aagtgtaaact  tattaacctt  tttattattt  atgtatttat  ttaagcatca
1081  aatatttttg  caagaatttg  gaaaaataga  agatgaatca  ttgattgaat  agttataaag
1141  atgttatagt  aaatttatatt  tatttttagt  attaatgat  gttttattag  ataaatttca
1201  atcagggttt  ttagattaaa  caaacaaaca  attgggtacc  cagttaaatt  ttcatttcag
1261  atatacaaca  aataattttt  tagtataagt  acattattgt  ttatctgaaa  ttttaattga
1321  actaacaatc  ctagtgtgat  actcccagtc  ttgtcattgc  cagctgtgtt  ggtagtgtcg
1381  tgttgaatta  cggaaataatg  agttagaact  attaaaacag  ccaaaactcc  acagtcaata
1441  tttagtaattt  cttgctggtt  gaaacttggt  tattatgtac  aaatagattc  ttataattt
1501  atttaaatga  ctgcattttt  aaatacaagg  ctttatattt  ttaacttta  aaaaaaccgg

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(2) INFORMATION FOR SEQ ID NO:2599:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1561 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2599

```

1  gaattctctc  tccagcagcc  ctgcccagatg  cccgcccagc  ccctgcctca  ggcggggagg
61  gcttcaggga  agctcaccaa  ggcagaaggg  cgggagagat  tgtcagagcc  ccagctgggtg
121  tccagggaact  gaccgtgagc  ctgggtgaaa  gtgagttccc  cgttggaggc  aacagacgag
181  gagaggatgg  aaggcctggc  ccccaagaat  gagccctgag  gttcagggag  cggctggagt
241  gagccggccc  cagatctccg  tccagctgcg  ggtcccagag  gcctgggtta  cactcgcagc
301  tcctggggga  ggcccttgac  gtgcctcagt  tcccaaacag  gaacctggg  aaggaccaga
361  gaagtgccta  ttgcgcagtg  agtgcccagc  acagctgcat  gtggccggta  tcacaggggcc
421  ctgggtaaac  tgaggcaggc  gacacagctg  catgtggccg  gtatcacag  gccctgggta
481  aactgaggca  ggcgacacag  ctgcatgtgg  ccggtatcac  agggccctgg  gtaaactgag
541  gcaggcgaca  cagctgcatg  tggccgtatc  acagggccct  gggtaaaact  aggcagggtga
601  cacagctgca  tgtggccggg  atcacggggc  cctggataaa  cagaggcagg  cgacacagct
661  gcatgtggcc  ggtatcacgg  ggcctgggt  aaactgagc  aggcgaggcc  accccatca
721  agtccctcag  gtctagggtt  ggcagggttg  gcaaaaacac  agcaacgctc  ggttaaattc
781  gaatttcggg  taagtataatc  ctgggcctca  tttggaagag  acttagatta  aaaaaaaac
841  gtcgagacca  gccgggcca  caggtgaaa  cccgctctct  actaaaaata  caaaaaatta
901  gccaggcgca  gtggtctcac  cctgtgatcc  cagcactctg  ggaggctgag  gcaggcggat
961  caccgagggt  cagatgttca  agaccagcct  ggcgacagg  gcgaaacact  gtcttacta
1021  caaatacaaa  aattagccgg  gagtgggtgg  aggtgcctgt  aatctcagct  attcaggagg
1081  ctgaggcagg  agaatacatt  gaacctggga  ggcggagggt  gccgtgagcc  gggatcacgc
1141  caccgcactc  cagcctgggc  gatagagcaa  gactctgtct  ccaaaaaaat  aaattaaaaa
1201  accacatttg  attatctgac  atttgaatgc  gattgtgcat  cctgaatttt  gtctggaggc
1261  cccacccgag  ccaatccagc  gtctgtccc  ctttctccc  ctttctatca  acgcccgtg
1321  ccaggggaga  ggaagtggag  ggcgctggcc  ggcgctgggg  caatgcaacg  gcctccagc
1381  acagggttat  aagaggagcc  gggcgggcac  ggaggggcag  agaccccgga  gccccagccc

```

1441 caccatgacc ctcggcgccg gactcgcgtg tcttttctc gectgtgtcc tgccggcett
 1501 gctgctgggg ggtgagtttt tgagtccaac ctcccgctgc tccctctgtc ccgggttctg
 1561 t

(2) INFORMATION FOR SEQ ID NO:2600:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5160 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2600

1 agcttcaccc tggagtcaac agattgggtt tgaatcctgg ctctgtccct ttctagctgt
 61 gtgtttgtt gttactccac ctctctgagc cttaatttct tcatcagtaa aagtaatat
 121 cacctctag ggttgttggg agggagaata agaacttcta aagtaccgga acctagcaac
 181 taggacacta tatttgcagg caagatgaag aggggtgggg aagtaatagg aaacagccca
 241 aatcgagagc cataatagtc tctctttact tagtgccagt gcaggcctgt gattctgttc
 301 ttaaaaacgt ctggggcaag ctgcaggaaa gacccgagat agcttatgtt ctaccataag
 361 ccttaaggga ggaggactcc aggcaggagg acttaccatg gcacctctaa gagaaagcct
 421 actgaccaga gagaggtcag tcatgtactc ccgtagcttc ttagaatttc tgatctgact
 481 cgtgcctct agagttgttc aggtggaaat tggaaggcta tagaggaatt cggcagcata
 541 cagtggctca cgtctgtaat ccaaaatcca agcattttgg aaggccaaag taggaggatc
 601 acttaagccc aggagtttaa gaccagccta ggcaaccgag tgagatccat ctccactaaa
 661 aaattttaaa atttgccagg tatggtggtg tgcacctgta gcccagcta ctcaggagag
 721 tcagagaatc ggcgacccc ggagttcgag gttgcagtga gccatgatca cgccactgta
 781 ctccagcctg ggtgacagag aagaccacct gtctcaaaaa acataaataa ataaataaat
 841 aaataggccg tgcgcagcgg ctacgactg taattccaac attttagaag gcggaggcag
 901 cgatcacctt gaggtcagga gttcgggacc agcctgacca acgtggtgaa accccaactc
 961 tactaaaaat acataaatta ggcggggcgt ggtggtggcc gctgtaatc ccagctactc
 1021 ggtaggctgc agcaggagaa tggtttgaac ccgggaggga gaggttgag tgagccaaaa
 1081 tccccctact gcattccagc ctgagactaa aaaaaagagg cgatttccca catcggtgga
 1141 aatttgagct gtttaaaact tggatgcctt ttccagttct aatattccag atctccttgg
 1201 tgataaaaca ctccatttcc ctctcctga gcagagctcc tgagccctgg cccgctggaa
 1261 cctgtcactt ctaaaaaagt tcgaggtccg gactgtctct cccggagcct tgaggtgat
 1321 gagacggagc gagagagggg ccgggggcaa tggagtctac tcgcggggcc agggaggcgc
 1381 cagagggccc cggaaccgac cgcaagaata acttccttcc tcttcgcta acttcccggc
 1441 agggctacgc tcagggtggg ggcgccgagg gctggggcgt cggcttcccc ctggggatcc
 1501 ccgcttcag agaagccaag cgttagcgca gccaaagccg gaggcagcga agctccggcc
 1561 cggggtggcg ctgggtcagg gtaccttctc ggcggtcccc tggccggccg aactcgcgcc
 1621 ttgtgtctct tcaccccgct ccccgccctg agtgagcctg tccctctca gggcgcgcc
 1681 cgagtcgctc cgggttggct gccagggtcca gagttaaact ttcagccaat gaaaaagggc
 1741 gcgagggctg acgcacggaa acgtcatggg aattcccccc tccggggggc cgagaagggg
 1801 ctttccccgc cctgagccct gctggcaggc gaggtgtcgc gaccggtccc aggtgggtcg
 1861 ggcgcgga gaagccgcaa ccagagccgc cgccacggtg agtggtgga ttcagacccc
 1921 tgggtggccg ggacaagaga aaagagggag gagggcctt agcgacagc gctggggct
 1981 ggagagcagc agctgcacac agccggaag ggcgcgcagg cgacgacact cggatccacg
 2041 tcgacaccgt tgtacaaaga tacgcgacc cgtacgtaca cctgtacctg tgcgtggcga
 2101 cacacggcag cgtccgtgca gtcgactcg cacacacatg cacacggaga cgtgccacc
 2161 ggtgcactgg tgctgcacc cacaccctc acgcacaaac tcaagatacg ctacccctg
 2221 tctgtacatc aagacaggcg ctgacacaca cccacactga gaagctcggg attcacctat
 2281 ctacacacat gctcgttgc aactcatgt tgacgccatg gacacacaa atgcaaccaa
 2341 gactacagc cgaacacac ttgtggagct gtgatggaga cacactcttg tattaggtgg
 2401 gggggggggg ggagcgtgca gagatctccc tgcgctcgc gcgccagaa ccggtgcggt
 2461 gtgggaccag ctgctgttgt gaggtttggg agagagagaa aaagagccca ctccgaggag
 2521 gagacacttt tcccgagccc ccgaatcgc gttctcgggg cagaaccccg gggcctccca
 2581 caggaaagag ccccgccctac aggtgttctg aaggggaggc cgtccgacag caggaaatgtc
 2641 ccccaaaaag ccccggggtt ttatcagccg tggcctccct cctggcagaa aatcccaagg
 2701 ttgctccaga ccgggggagg ggagcgggag gcggacttgg cccagactg ccagcctct
 2761 cccggccggt aaagaccctc ctgttccctg ccctggagg aggagggggc ttaaccacc
 2821 ggggcttccc gatttctct agacctctgc ccgctgaaaa gcagcgggac gccgtagact
 2881 gtcgagggcc atcccgcccc tcccgctcgc agggcggggc cagtggcgtc atttccaggc
 2941 ccgccccctc cggccccgcc tcccttgggt attttcggga ctttctaag ctgctctaac
 3001 ttctctgccc ctccccgcc aagcccaact ccggatctcg ctctccaccg gatctcacc

3061 gccacaccgc gacaggcggc tggaggaggt cggaccctcc cccaaatctg ggccccatt
3121 ctcccgccca ccccatatta gatctgaccc cctccccac gccactcctc ccaactttag
3181 gcggcgctct aaaattcttg gaagcagaac ctggccggag ccactagaca gagccgggcc
3241 tagcccgagc acatggagag ttgctacaac ccagttagtc atgccgctg cccctgaccc
3301 ggccggctag cccctcgtgt ctgtccacct gtctgccga gccccctact gctgccttac
3361 acctgtatgc ctgcagatg ctctcagcct gccagtctgt ccactctgtc gcaactctgc
3421 ctccaaaagg agctttctct tgggtctgag gaggaggggg gaggaccac tgaagacttg
3481 gaagatggga ggtggggcta gtgtgggggg tgctgagagt cggatgccac cccagctctg
3541 tctccaaacc aggtcttgga tggattatt gaatatgatg atttcaaatt gaactcctcc
3601 attgtggaac ccaaggagcc agccccagaa acaggtcagc aagttcacta acctccccta
3661 gtctaaagcg ggggaggagc agcatgtgcc ctctctctgg gggaggggtc tgggagatcg
3721 tgtgctcagc aaggtctctc tgtccccagc tgatggcccc tacctggtag tctgtggaaca
3781 gcctaagcag gttgagttag caaaaggagc ggatgtggaa tggcttcagc tttggggaca
3841 aatggggtag ttagctggc tggcatggag gacattgcc gaagaggccc acaggggatt
3901 ggatggtcac tgtgctgat cagagtgtc tagttttggt tcagggctac taccagcgac
3961 tcgggtcact gctggcctgg gtgtcttcc ctgacacaa tgctactatg cccttgacct
4021 tcagagaggg ttccgatttc gatattggctg tgaaggcccc tcccatggag gactgcccgg
4081 tgctccagc gagaagggcc gaaagacct tcccactgtc aaggtgkccc aggatgggtg
4141 tggmgtgtg gctaagtga cagcatgccc aaggccctga cgtgacagtc ccttgctctc
4201 cctagatctg taactacgag ggaccagcca agatcgaggt ggacctggtc acacacagtg
4261 acccaccctg tgctcatgcc cacagtctgg tggcaagca atgctcggag ctggggatct
4321 gcccgttctc ttgggggccc aaggacatga ctgcccagta ggtgcccttc ttacgccttg
4381 gccccactg gtatgccskt cwtgccagtc ccaggcccca gccacctcca tatgatgtta
4441 gcatctgacc aaggggaaan gatgtaggtt ggcccccac ccaagggcct aagtagaaac
4501 tccaatggct tcttgagga agtaaggctg agctgagcct ggcaatggga aaggtgcctg
4561 gcaatgggaa aggtgcctca ggaagaaaga actgcatggc caaaggctcc cgattctctc
4621 ttctcagatt taacaacctg ggtgtcctgc atgtgactaa gaagaacatg atggggacta
4681 tgatacaaaa acttcagagg cagcggtccc gctctaggcc ccagggcctt acgggtatgg
4741 gtgcaggggg tgggtcgggt atgggtgca ggggtgggtg ggtcatggga ggtgctcatg
4801 gaaggagcag ggaggagaa gccaggggtc acacatgtac ctactgccc aaggccgagc
4861 agcgggagct gaggcaagag gccaaagaac tgaagaaggt gatggatctg agtatagtcg
4921 ggctgcgctt ctctgccttc cttagagcca gtgatggctc cttctccctg cccctgaagc
4981 cagtcacctc ccagcccatc catgatagca gtgagtatcc tgattgctg ggggtgccag
5041 cctggtsgsa gagggtgcat gagggtgac ctcaagctgt gcagtcaaac aagaccagc
5101 tttcagaacc tgcsetgcca catatgagct gagtgatect gagcaagtca tttcccccc

(2) INFORMATION FOR SEQ ID NO:2601:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3625 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2601

1 ggccaccgga gcggcccgcc gacgatcgt gacagcttcc cctgcccttc ccgtcggtcg
61 ggccgcccagc gcgcgcagcc ctgcgctgc acgcagccac cggccccgct cccggagccc
121 agcgcgcgagc aggcgcgagc cgcccgcca gtaaggcgcc gcccccgcg gccaccgagg
181 gccctgcgt tccctccgcc gcgtgcgcc atggcgcgcc gctgactggc ctggcccgcc
241 ccgcccgcgc tccgctcgc ccgaccgcg actcggggcc gccggggctc cggcctgccc
301 ccgcctcttc cttctccagc cggcaggccc cgccgcttag gagggagagc ccaccgagc
361 caggaggccg aacgcggact cgccaccgag cttcagaatg gcagaagatg atccatattt
421 gggaaggcct gaacaaatgt ttcatattga tcttctttg actcatacaa tatttaattc
481 agaagtattt caaccacaga tggcactgcc aacagatggc ccataccttc aaatattaga
541 gcaacctaaa cagagaggat ttctgttccg ttatgtatgt gaaggcccat cccatggtgg
601 actacctggt gcctctagtg aaaagaacaa gaagtcttac cctcagggtc aaatctgcaa
661 ctatgtggga ccagcaaaagg ttattgttca gttggtcaca aatggaaaaa atatccacct
721 gcatgcccac agcctggtgg gaaaacactg tgaggatggg atctgactg taactgctgg
781 acccaaggac atgggtggtc gcttcgcaaa cctgggtata cttcatgtga caaagaaaaa
841 agtatttgaa acactggaag cacgaatgac agaggcggtg ataaggggct ataactctg
901 actcttggtg caccctgacc ttgcctattt gcaagcagaa ggtggagggg accggcagct
961 gggagatcgg gaaaaagagc taatccgcca agcagctctg cagcagacca aggagatgga
1021 cctcagcgtg gtgcggctca tgtttacagc tttcttccg gatagcactg gcagcttcac
1081 aaggcgctg gaaccggtg tatcagacgc catctatgac agtaaagccc ccaatgcatc

1141 caacttgaaa attgtaagaa tggacaggac agctggatgt gtgactggag gggaggaaat
1201 ttatcttctt tgtgacaaaag ttcagaaaaga tgacatccag attcgatttt atgaagagga
1261 agaaaatggt ggagctctggg aaggatttgg agatttttcc cccacagatg ttcatagaca
1321 atttgccatt gtcttcaaaa ctccaaagta taaagatatt aatattacaa aaccagcctc
1381 tgtgtttgtc cagcttcgga ggaatctga cttggaaact agtgaaccaa aacctttcct
1441 ctactatcct gaaatcaaag ataaagaaga agtgcagagg aaacgtcaga agctcatgcc
1501 caatttttctg gatagtttctg gcggtggtag tggcgccgga gctggaggcg gaggcattgt
1561 tggtagtgcc gggtggaggag ggggcaactgg aagtacaggt ccagggtata gcttcccaca
1621 ctatggattt cctacttatg gtgggattac ttccatcctt ggaactacta aatctaagtc
1681 tgggatgaag catggaacca tggacactga atctaaaaag gacctgaag gttgtgacaa
1741 aagtgtatgc aaaaacactg taaacctctt tgggaaagt attgaaacca cagagcaaga
1801 tcaggagccc agcgaggcca ccgttgggaa tggtaggtc actctaactg atgcaacagg
1861 aacaaaagaa gagagtgtctg gaggttcagg taacctcttt ctagagaagg ctatgcagct
1921 tgcaagagg catgccaatg cccttttctga ctacgcggtg acaggagacg tgaagatgct
1981 gctggccgtc cagcgccatc tcaactgctg gcaggatgag aatggggaca gtgtcttaca
2041 cttagcaatc atccaccttc attctcaact tgtgagggat ctactagaag tcacatctgg
2101 tttgatttct gatgacatta tcaacatgag aaatgatctg taccagacgc ccttgcaact
2161 ggcagtgtac actaagcagg aagatgtggt ggaggatttg ctgagggtg gggccgacct
2221 gagccttctg gaccgcttgg gtaactctgt tttgcaccta gctgcaaaag aaggacatga
2281 taaagttctc agtatcttac tcaagcaca aaaggcagca ctacttcttg accaccccaa
2341 cggggacggt ctgaatgcc a ttcattctagc catgatgagc aatagcctgc catgtttgct
2401 gctgctgtg gcgctgggg ctgacgtcaa tgctcaggag cagaagtccg ggcgcacagc
2461 actgcacctg gctgtggagc acgacaacat ctcatgtgca ggctgcctgc tctggagggg
2521 tgatgcccat gtggacagta ctacctacga tggaaaccaca ccctgcata tagcagctgg
2581 gagagggtcc accaggctgg cagctcttct caaagcagca ggagcagatc ccctgggtgga
2641 gaactttgag cctctctatg acctggatga ctcttgggaa aatgcaggag aggatgaagg
2701 agttgtgcct ggaaccacgc ctctagatat ggcaccagc tggcaggat ttgacatatt
2761 aaatgggaaa ccatatgagc cagagtttac atctgatgat ttactagcac aaggagacat
2821 gaaacagctg gctgaagatg tgaagctgca gctgtataag ttactagaaa ttctgatcc
2881 agacaaaac tgggctactc tggcgagaaa attaggtctg gggatactta ataatgcctt
2941 ccggtctgag cctgctcctt ccaaaacact tatggacaac tatgaggtct ctgggggtac
3001 agtcagagag ctgggtggagg ccttgagaca aatgggctac accgaagcaa ttgaagtgat
3061 ccaggcagcc tccagccag tgaagaccac ctctcaggcc cactcgtgc ctctctcgcc
3121 tgccctccaa aggcagcaaa tagacgagct ccgagacagt gacagtgtct gcgacacggg
3181 cgtggagaca tccctccgca aactcagctt taccgagct ctgaccagtg gtgcctcact
3241 gctaactctc aacaaaatgc cccatgatta tgggcaggaa ggacctctag aaggcaaaat
3301 tgaacctgct gacaatttcc cacaccgtgt aaaccaaagc cctaaaattc cactgcgttg
3361 tccacaagac agaagctgaa gtgcattcaa aggtgctcag agagccggcc cgctgaatc
3421 attctcgatt taactcgaga ccttttcaac ttggcttctt ttcttggttc ataaatgaat
3481 ttttagtttg ttcacttaca gatagtatct agcaatcaca acactggctg agcggatgca
3541 tctggggatg aggttgctta ctaagcttgg ccagctgctg ctggatcaca gctgctttct
3601 gttgtcattg ctgttgcctc tctgc

(2) INFORMATION FOR SEQ ID NO:2602:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1650 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2602

1 acttttctgc cccttccccg gccaaagccca actccggatc tcgctctcca ccggtatctca
61 cccgccacac ccggacaggc ggctggagga ggcgggcgtc taaaattctg ggaagcagaa
121 cctggccgga gccactagac agagccgggc ctagcccaga gacatggaga gttgctacaa
181 cccaggtctg gatggtatta ttgaatatga tgatttcaaa ttgaactcct ccattgtgga
241 acccaaggag ccagccccag aaacagctga tggcccttac ctggtgatcg tggaaacagcc
301 taagcagaga ggcttccgat ttogatatgg ctgtgaaggc ccctcccatg gaggactgcc
361 cggtgcctcc agtgagaagg gccgaaagac ctatcccact gtcaagatct gtaactacga
421 gggaccagcc aagatcgagg tggacctggt aacacacagt gacctaccte gtgctcatgc
481 ccacagtctg gtgggcaagc aatgctcgga gctggggatc tgcgccgttt ctgtggggcc
541 caaggacatg actgcccaat ttaacaacct ggggtgtcctg catgtgacta agaagaacat
601 gatggggact atgatacaaa aacttcagag gcagcggctc cgtcttaggc ccaggggcct
661 tacggaggcc gagcagcggg agctggagca agaggccaaa gaactgaaga aggtgatgga

721 tctgagtata gtgcggctgc gcttctctgc cttccttaga gccagtgatg gctccttctc
781 cctgccccctg aagcccagtc cctcccagcc catccatgat agcaaatctc cgggggcatc
841 aaacctgaag atttctcgaa tggacaagac agcaggctct gtgcgggggtg gagatgaagt
901 ttatctgctt tgtgacaagg tgcagaaaga tgacattgag gttcgggttct atgaggatga
961 tgagaatgga tggcaggcct ttggggactt ctctcccaca gatgtgcata aacagtatgc
1021 cattgtgttc cggacacccc cctatcaca gatgaagatt gagcggcctg taacagtgtt
1081 tctgcaactg aaacgcaagc gaggagggtg cgtgtctgat tccaaacagt tcacctatta
1141 ccctctgttg gaagacaagg aagagggtgca gcggaagcgg aggaaggcct tgcccacctt
1201 ctcccagccc ttccgggggtg gctcccacat gggtaggagg tctgggggtg cagccggggg
1261 ctacggagga gctggaggag gtgaggggtg actgatggag ggaggggtaa aggtaaagaga
1321 agctgtggag gaaaaaaatc tgggggaggc cgggcgtggc ttgcacgctt gtaatccagc
1381 ctttgggagg ccaaggcagg cagttacctg agatcaggag ttcaagacca gcttggccaa
1441 cagcgtgaaa cctcgtctct actaaaaata caaacattag ctgggcattg tggcaggcgc
1501 ctgtaatccc agctactcgg gaggtgagg caggagaatc gcttgaacct tgggagacaa
1561 gaggttgcag taagctgaga tcacaccact gcactccagg ctgggcaata agagcgaaac
1621 tccgtctcaa aaaaaaaaaa aaaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2603:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3113 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2603

1 cacggtgagt ggctggattc agaccctgg gtggccggga caagagaaaa gagggaggag
61 ggccttttagc ggacagcgcc tggggctgga gagcagcagc tgacacacagc cggaaagggc
121 gcgcaggcga cgacactcgg atccacgtcg acaccgttgt acaaagatac gcggaccgcg
181 gggcgtctaa aattctggga agcagaacct ggccggagcc actagacaga gccgggccta
241 gcccagagac atggagagtt gctacaacct aggtctggat ggtattattg aatatgatga
301 tttcaaattg aactcctcca ttgtggaacc caaggagcca gcccagaaa cagctgatgg
361 cccctacctg gtgatcgtgg aacagcctaa gcagagaggc ttccgatttc gatatggctg
421 tgaaggcccc tcccatggag gactgcccgg tgctccagt gagaagggcc gaaagacct
481 tcccactgtc aagatctgta actacgaggg accagccaag atcgagggtg acctggtaac
541 acacagtgac ccacctcgtg ctcatgccca cagtctggtg ggcaagcaat gctcggagct
601 ggggatctgc ccggtttctg tggggcccaa ggacatgact gcccaattta acaacctggg
661 tgtcctgcat gtgactaagg agaacatgat ggggactatg atacaaaaac ttcagaggca
721 gcggtctcgc tctaggcccc agggccttac ggaggccgag cagcgggagc tggagcaaga
781 ggccaaagaa ctgaagaagg tgatggatct gagtatagtg cggtgcgct tctctgcctt
841 ccttagagcc agtgatggct ccttctccct gccctgaag ccagtcactc cccagcccat
901 ccatgacaga aaatctccgg gggcatcaaa cctgaagatt tctcgaatgg acaagacagc
961 aggtctctgt cggggtggag atgaagttta tctgctttgt gacaagggtg agaaagatga
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(2) INFORMATION FOR SEQ ID NO:2604:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13548 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2604

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(2) INFORMATION FOR SEQ ID NO:2605:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2163 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2605

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1261 atcctggctg ccatttttgc agctgccatc catgacgttg atcatcctgg agtctccaat
1321 cagtttctca tcaacacaaa ttcagaactt gctttgatgt ataatgatga atctgtgtg
1381 gaaaatcatc accttgctgt gggtttcaaa ctgctgcaag aagaacactg tgacatcttc
1441 atgaatctca ccaagaagca gcgtcagaca ctcaggaaga tggttattga catggtgtta
1501 gcaactgata tgtctaaaca tatgagcctg ctggcagacc tgaagacaat ggtagaaacg
1561 aagaaagtta caagtccag cgttcttctc ctagacaact ataccgatcg cattcaggtc
1621 cttcgcaaca tggtagactg tgcagacctg agcaacccca ccaagtcctt ggaattgtat
1681 cggcaatgga agaccgcac catggaggaa tttttccagc agggagacaa agagcggag
1741 aggggaatgg aaattagccc aatgtgtgat aaacacacag cttctgtgga aaaatcccag
1801 gttggtttca tcgactacat tgtccatcca ttgtgggaga catgggcaga tttggtacag
1861 cctgatgctc aggacattct cgatacctta gaagataaca ggaactggta tcagagcatg
1921 atacctcaaa gtccctcacc accactggac gagcagaaca gggactgccg gggctctgatg
1981 gagaagtttc agtttgaact gactctgat gaggaagatt ctgaaggacc tgagaaggag
2041 ggagagggac acagctatct cagcagcaca aagacgcttt gtgtgattga tccagaaaac
2101 agagattccc tgggagagac tgacatagac attgcaacag aagacaagtc ccccgaggat
2161 aca
```

(2) INFORMATION FOR SEQ ID NO:2606:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 348 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2606

```
1 tatcacaaca gcatgcacgc agccgatgtt acccagacag tccattgctt cttgctccgc
61 acagggatgg tgcactgcct gtcggagatt gagctcctgg ccatcatctt tgcctgagct
121 atccatgatt atgacacac gggcactacc aacagcttcc acatccagac caagtcagaa
181 tgtgccatcg tgtacaatga tcgttcagtg ctggagaatc accacatcag ctctgttttc
241 cgattgatgc aggatgatga gatgaacatt ttcataaacc tcaccaagga tgagtttgta
301 gaactccgag ccctggctcat tgagatgggt ttggctacag atatggca
```

(2) INFORMATION FOR SEQ ID NO:2607:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2511 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2607

```
1 atgacagcaa aagattcttc aaaggaactt actgcttctg aacctgaggt ttgcataaaag
61 accttcaagg agcaaatgca tttagaactt gagcttccga gattaccagg aaacagacct
121 acatctccta aaatttctcc acgcagttca ccaaggaact caccatgctt ttcagaaaag
181 ttactgggtga ataaaagcat tcggcagcgt cgtcgcttca ctgtggctca tacatgcttt
241 gatgtggaaa atggcccttc cccaggctcg agtccactgg atccccaggc cagctcttcc
301 gctgggctgg tacttcacgc cacttttctt gggcacagcc agcgagaga gtcatcttctc
361 tacagatcag acagcgacta tgacttgtca ccaaaggcga tgtcgagaaa ctcttctctt
421 ccaagcgagc aacacggcga tgacttgatt gtaactcctt ttgccagggt ccttgccagc
481 ttgcgaagtg tgagaaacaa cttcactata ctgacaaacc ttcattggtac atctaacaag
541 aggtccccag ctgctagtca gcctcctgtc tccagagtca acccacaaga agaactttat
601 caaaaattag caatggaaac gctggaggaa ttagactggg gtttagacca gctagagacc
661 atacagacct accggtctgt cagtggatg gcttctaaca agttcaaaag aatgctgaac
721 cgggagctga cacacctctc agagatgagc cgatcaggga accaggtgtc tgaatacatt
781 tcaaatactt tcttagacaa gcagaatgat gtggagatcc catctcttac ccagaaagac
841 agggagaaaa agaaaaagca gcagctcatg acccagataa gtggagtga gaaattaatg
901 catagttcaa gcctaaacaa tacaagcatc tcacgctttg gagtcaacac tgaatatgaa
961 gatcacctgg ccaaggagct ggaagacctg aacaaatggg gtcttaacat cttaaatgtg
1021 gctggatatt ctcacaatag acccctaaca tgcattcatg atgctatatt ccaggaaaaga
1081 gacctcctaa agacattcag aatctcatct gacacattta taacctacat gatgacttta
1141 gaagaccatt accattctga cgtggcatat cacaacagcc tgcacgctgc tgatgtagcc
1201 cagtcgacct atgttctcct ttctacacca gcattagacg ctgtcttcac agatttgagg
1261 atcctggctg ccatTTTTgc agctgccatc catgacgttg atcactctgg agtctccaat
1321 cagtttctca tcaacacaaa ttcagaactt gctttgatgt ataattgatga atctgtgttg
1381 gaaaatcctc acccttgctg ggttttcaaa ctgctgcaag aagaacactg tgacatcttc
1441 atgaatctca ccaagaagca gcgtcagaca ctcaggaaga tggttattga catggtgtta
1501 gcaactgata tgtctaaaca tatgagcctg ctggcagacc tgaagacaat ggtagaaacg
1561 aagaaagtta caagttcagg cgttcttctc ctagacaact ataccgatcg cattcaggtc
1621 cttcgcaaca tggtagactg tgcagacctg agcaacccca ccaagtcctt ggaattgtat
1681 cggcaatgga cagaccgcat catggaggaa tttttccagc agggagacaa agagcgggag
1741 aggggaatgg aaattagccc aatgtgtgat aaacacacag ctctgtgtga aaaatcccag
1801 gttggtttca tcgactacat tgtccatcca ttgtgggaga catgggcaga tttggtacag
1861 cctgatgctc aggacattct cgatacctta gaagataaca ggaactggtg tcagagcatg
1921 atacctcaa gtccctcacc accactggac gagcagaaca gggactgcca ggtctgatg
1981 gagaagtctc agtttgaact gactctcgat gaggaagatt ctgaaggacc tgagaaggag
2041 ggagagggac acagctatct cagcagcaca aagacgcttt gtgtgattga tccagaaaac
2101 agagattccc tgggagagac tgacatagac attgcaacag aagacaagtc ccccgtagg
2161 aca
1 tatcacaaca gcatgcacgc agccgatgtt acccagacag tccattgctt cttgctccgc
61 acagggatgg tgcactgcct gtcggagatt gagctctgg ccatcatctt tgctgcagct
121 atccatgatt atgagcacac gggcactacc aacagcttcc acatccagac caagtcagaa
181 tgtgccatcg tgtacaatga tcgttcagtg ctggagaatc accacatcag ctctgttttc
241 cgattgatgc aggatgatga gatgaacatt ttcattcaacc tcaccaagga tgagtttgta
301 gaactccgag cctcggtcat tgagatgggt ttggctacag atatggca
```

(2) INFORMATION FOR SEQ ID NO:2608:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2372 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2608

```
1 gggcgccgct cgcgcgctg ggtgcgggaa gggggctctg gatttcgggtc cctccccctt
61 ttcctctgag tctcggaacg ctccagctct cagaccctct tcctcccagg taaaggccgg
121 gagaggaggc cgcatctctt ttccaggcac cccaccatgg gcaatgcctc caatgactcc
181 cagtctgagg actgcgagac gcgacagtgg ctccccccag gcgaaagccc agccatcagc
241 tccgtcatgt tctcggccgg ggtgctgggg aacctcatag cactggcgct gctggcgcg
```

```

301 cgctggcggg gggacgtggg gtgcagcgcc ggccgcagga gctccctctc cttgttccac
361 gtgctgggtga ccgagctggg gttcaccgac ctgctcgga cctgctcat cagcccagtg
421 gtactggctt cgtacgcgcg gaaccagacc ctggtggcac tggcgcccg gagccgcgcg
481 tgcacctact tcgctttcgc catgacctc ttcagcctgg ccacgatgct catgctcttc
541 gccatggccc tggagcgcta cctctcgatc gggcaccctt acttctacca gcgccgcgtc
601 tcggcctccg ggggcctggc cgtgctgcct gtcacttatg cagtctccct gctcttctgc
661 tcgctgcgcg tgctggacta tgggcagtac gtccagtact gcccggggac ctggtgcttc
721 atccggcacg ggcggaccgc ttacctgcag ctgtacgcca ccctgctgct gcttctcatt
781 gtctcggtgc tcgcctgcaa cttcagtgtc attctcaacc tcacccgcat gcaccgccga
841 agccggagaa gccgctgcgg accttccttg ggcagtggcc ggggcggccc cggggccgcg
901 aggagagggg aaagggtgtc catggcgagg gagacggacc acctcattct cctggctatc
961 atgaccatca ccttcgccgt ctgctccttg cctttcacga tttttgcata tatgaatgaa
1021 acctcttccc gaaaggaaaa atgggacctc caagctctta ggtttttatc aattaattca
1081 ataattgacc cttgggtctt tgccatcctt aggcctcctg ttctgagact aatgcgttca
1141 gtcctctgtt gtcggatttc attaagaaca caagatgcaa cacaaacttc ctgttctaca
1201 cagtcagatg ccagtaaaaa ggctgacctt tgaggtcagt agtttaaaag ttcttagtta
1261 tatagcatct ggaagatcat tttgaaattg ttccctggag aaatgaaaac agtgtgtaaa
1321 caaaatgaag ctgccctaata aaaaaggagt atacaaacat ttaagctgtg gtcaaggcta
1381 cagatgtgct gacaaggcac ttcatgtaaa gtgtcagaag gagctacaaa acctaccctc
1441 aatgagcatg gtacttggcc tttggaggaa caatcggtcg cattgaagat ccagctgcct
1501 attgatttaa gcttttctgt tgaatgacaa agtatgtggt tttgtaattt gtttgaaacc
1561 ccaaaccagt actgtacttt ctattttaat cttgtacta ccgttatata catatagtgt
1621 acagccagac cagattaaac ttcatatgta atctctagga agtcaatatg tggagcaaac
1681 caagcctgct gtcttgtgat cacttagcga accctttatt tgaacaatga agttgaaaat
1741 cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt
1801 actcttacia gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa
1861 ctgcaggtca agttgtcagg ttattttatt tataatgtcc atatgctaag agtgatcaag
1921 aagactttag gaatggttct ctcaacaaga aataatagaa atgtctcaag gcagttaatt
1981 ctcatataata ctcttattat cctatttctg ggggaggatg tacgtggcca tgtatgaagc
2041 caaatattag gcttaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt
2101 ttaaagttag tattggggcc atgagtaaaa tagattttat aagatgactg tgtgtacca
2161 aaattcatct gtctatattt tatttagggg aacatgggtt gactcatctt atatgggaaa
2221 ccatgtagca gtgagtcata tcttaataata tttctaaatg tttggcatgt aaatgtaaac
2281 tcagcatcaa aatatttcag tgaatttgca ctgtttaatc atagttactg tgtaaaccta
2341 tctgaaatgt tacaaaaata aactataaaa ca

```

(2) INFORMATION FOR SEQ ID NO:2609:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1376 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2609

```

1 gggggcgcca ggctgagcg gccggtgatg gggacccac atcccaggca gtgccggcac
61 cctggcgccc tgacatgagc ccttgcgggc ccctcaacct gagcctggcg ggcgaggcga
121 ccacatgcgc ggcgccttgg gtccccaaca cgtcgccgt gccgcctcg ggcgcttcgc
181 ccgcgctgcc catcttctcc atgacgctgg gcgcctgtc caacctgtcg gcgctggcgc
241 tgctggcgca ggcgcggggc cgcctgcgac gccgcgctc ggccaccacc ttctgctgt
301 tcgtggccag cctgctggcc accgacctgg cgggccacgt gatcccgggc gcgctgggtg
361 tgcgtctgta cactgcgggg cgcgtccgg ccggcggggc ctgccacttc ctggggcgct
421 gcatggtctt cttcggcctg tgcccgtgct tgctgggctg tggcatggcc gtggagcgct
481 gcgtggcgct cagcgggccc ctgctccacg ccgcgcgggt ctcggtcgcc cgcgcgcgc
541 tggcgctggc cgcggtggcc ggcgtggcct tggcctgggc gctgctgcg ctggcgcgcg
601 tgggccccta tgagctgcag tacccgggca cgtggtgctt catcggcctg ggtcccccgg
661 gcggctggcg ccaggcactg cttgctggcc tcttcgccag cctcggcctg gtcgcgctcc
721 tcgccgcgct ggtgtgcaac acgctcagcg gcctggccct gcacgcgcc cgcgtggcgc
781 gccgctccc acggcctccc ccggcctcag gcccgcacag ccggcgctgc tggggggcgc
841 acggaccccg ctgcggcctc gcctcgctcg cctcgctcat cgttcggcc tccacctct
901 ttggcggtct tcggagcagc ggctcggcac gcagagctcg ccccacgac gtggagatgg
961 tgggccaagt gtcgggtatc atggtggtgt cgtgcatctg ctggagccca atgctgggtg
1021 tgggtggcgt ggcgctggcc ggctggagct ctacctccct gcagcgcca ctgttcttgg
1081 ccgtgcgcct tgcctcctgg aaccagatcc tggacccttg ggtgtacatc ctactgcgcg

```


1141 aggccgtgct gcgccaactg cttcgccctct tgcccccgag ggccggagcc aagggcggcc
1201 ccgcggggct gggcctaaca ccgagcgccct gggaggccag ctgctgctgc agctcccgcc
1261 acagcgccct cagccacttc taagcacaac cagaaggccca acgactaagc cagcccaccc
1321 tgggctgggc ccaggtgctg gcgcgagagc ctttggaat aaaaagccat tctgctg

(2) INFORMATION FOR SEQ ID NO:2610:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1077 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2610

1 atgggcaatg cctccaatga ctcccagctc gaggaactgc agacgcgaca gtggcttccc
61 ccaggcgaaa gcccgcccat cagctccgtc atgttctcgg ccgggggtgct ggggaacctc
121 atagcactgg cgctgctggc gcgcgctgg cggggggacg tgggggtgag cgccggccgc
181 aggagctccc tctccttgtt ccacgtgctg gtgaccgagc tgggtgtcac cgacctgtc
241 gggacctgcc tcatcagccc agtggtactg gcttcgtacg cgcggaacca gacctgtgtg
301 gcaactggcg ccgagagccg cgcgtgcacc tacttcgctt tcgccaatgac cttcttcagc
361 ctggccacga tgctcatgct cttcgccatg gccctggagc gctacctctc gatcgggcac
421 cctcactttt accagcgccg cgtctcgctc tccgggggccc tggccgtgct gcctgtcatc
481 tatgcagtct cctgtctctt ctgctcgctg ccgctgctgg actatgggca gtacgtccag
541 tactgccccg ggacctgtgt cttcatcccg caccggcgga ccgcttacct gcagctgtac
601 gccaccctgc tgctgtctct cattgtctcg gtgctcgctt gcaacttcag tgcattctc
661 aacctcatcc gcatgcaccg ccgaagccgg agaagccgct gcggaccttc cctgggcagt
721 ggccggggcg gccccggggc ccgcaggaga ggggaaaggg tgtccatggc ggaggagacg
781 gaccacctca ttctcctggc tatcatgacc atcaccttcg ccgtctgtc cttgccttc
841 acgatttttg catatatgaa tgaaacctct tcccgaaggg aaaaatggga cctccaaagt
901 cttaggtttt tatcaattaa ttcaataatt gaccttggg tctttgccat ccttaggcct
961 cctgttctga gactaatgcg ttcagtcctc tgttgcgga tttcattaag aacacaagat
1021 gcaacacaaa cttcctgttc tacacagtca gatgccagta aacaggtgta cctttga

(2) INFORMATION FOR SEQ ID NO:2611:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1241 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2611

1 ctgcagatgg gaagaggttt ttccaggaat ttaaattgtg caataaggcc acacaatctt
61 acttaaaaaa aatggtgaag ggtttttaat tacaccatga agttttacaa ttttttaggt
121 ttttagttct ggttttagaa aacagagtag aaggattaac agagaaaaac ttcaccatta
181 gacaagaagt caaaatgatt ctaaggcccg cgcaaacagg ctttccaaga attaatcatg
241 aggtggtgct tggagaattc ctttactcca gtgactttga aaccccttc tcaacttcca
301 ctagtctttc aaaggattca tggatgaatt ggtctaacga gtataacacg gccggccgaa
361 cgatgaagct cagctacccc ttccagggcg gagaagttcc caggaggaag aatggagaaa
421 aagatgcgag ttaggcagtc ctcccaacct caccaaggct ccacctctct ccaaagccgc
481 aacgtgtctg cacctgcgce gggagaggct gcaatcactg tctcctctc tttctttctc
541 tttttttttt tttctttttt gcctgggggtg cccgaccaag cgcagccgca gtctgggcac
601 tgccaactga ctccaactcc ttttatggtg agaggatgga ttcttcgtta tttccccgcc
661 caatctggta cccacccacc caccaccca ccacgtccgc tgggcgcacc caagtctaac
721 cccggggcgc acgcgctagc gcagacaccg tatttctcct cctttctcgg ccaaccttag
781 gtagaatcct aaaacaactg ccctctcttc cagcatctag atgttgccgc ccgcggacag
841 gaggttcaag aaatagtaca ctccgagcgg caggcagcga gagcggaac ggtcgccggt
901 ttcagtgggt gccccactgg aagccgagtt caggagcggc taagcgtcgc cggggaaagc
961 accggggctt cccagggtct cctccgagtt cccactccgc acctccgag gcgtgaaaac
1021 caggggagcc gcccgccccg cgcgcccagc cccgccccag cccagacacc gccccccgcc
1081 agtcttccct gcggcgccca gggaggacgc cgtccgcccc cttccaatcc ggccaatggg
1141 cgcccgggga gcgcgcggtt tgcctccgcc tccgcccagg aaacttgag gaggagaaaa
1201 gtttgtacag aggggtgaaa ggcgcagca cgcgagctcc a

(2) INFORMATION FOR SEQ ID NO:2612:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2154 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2612

```
1 agcccgccag cccgagagga agatgaacag cccagggcca gagcctctgc gagagtggac
61 cccgagccgc ccccaggtag ccaggagcgg cctcagcggc agccgcaaac tccagtagcc
121 gcccggtgctg cccgtgcttg ggcggagggc agccagagct ggggaccaag gctccgcgcc
181 acctggggcac agcctcacac ctgaacgctg tctcccgcga gacgagaccg gggggcactg
241 caaagctggg actcgtcttt gaaggaaaaa aaatagcgag taagaaatcc agcaccattc
301 ttcactgacc catcccgctg cacctcttgt ttcccaagtt tttgaaagct ggcaactctg
361 acctcggtgt ccaaaaatcg acagccactg agaccggctt tgagaagccg aagatttggc
421 agttttccaga ctgagcagga caaggtgaaa gcaggttgga ggcgggtcca ggacatctga
481 gggctgaccc tgggggctcg tgaggctgcc accgctgctg ccgctacagg tgagatggcg
541 ttgggctgac gttgggggtca acgggtagag aacgagggat gccgccctcg ccgaagagag
601 ccaagagggg aagagcgcg ctcctcaatt gcttttgtaa cttgttttca gtgagcattt
661 tattgattca gaattctatc agaatagcac tagcgagcta ctttccctt gagatgggtc
721 ttattcatct tggcaatgga gtgagttgga ttgtggggag gaagaggaat gggaaaatca
781 gtttataaat attaatgtca gccaaagagt tgctgttgcc aggacgtatc gcgagcctgg
841 agattttggt ggccgcagtt ggtaagtggc tacaatccag aaagtaggat cgagttgctc
901 cccttgctct atcagtgat cgtttctcgg gcgcgggtct aacaccttac aagtggtaat
961 ttcgctcac ggcagctttg tctctcttct accatcccca gaccagcct tgcactccaa
1021 ggctgcgcac cgccagccac tatcatgtcc actcccggg tcaattcgtc cgctccttg
1081 agccccgacc ggctgaacag cccagtaacc atcccgccg tgatgttcat cttcggggtg
1141 gtgggcaacc tgggtggccat cgtggtgctg tgcaagtcgc gcaaggagca gaaggagacg
1201 accctctaca cgctggtatg tgggctggct gtcaccgacc tggtgggcac tttgttggtg
1261 agcccggtga ccatcgccac gtacatgaag ggccaatggc ccgggggcca gccgctgtgc
1321 gagtacagca ccttcattct gctcttcttc agcctgtccg gcctcagcat catctcgcc
1381 atgagtgtcg agcgctacct ggccatcaac catgcctatt tctacagcca ctacgtggac
1441 aagcgattgg cgggcctcac gctctttgca gtctatgcgt ccaacgtgct cttttgcgcg
1501 ctgcccacaa tgggtctcgg tagctcgcg ctgcagtacc cagacacctg gtgcttcac
1561 gactggacca ccaacgtgac ggcgcacgcc gectactcct acatgtacgc gggcttcagc
1621 tcttctctca ttctcgccac cgctctctgc aacgtgcttg tgtgcggcgc gctgctccgc
1681 atgcaccgcc agttcatgcg ccgcacctcg ctgggcaccg agcagcacca cgcggccgcg
1741 gccgcctcgg ttgctctccg gggccacccc gctgectccc cagccttgcc gcgcctcagc
1801 gactttcgcc gccgcggag cttccgccc atcgcggggc ccgagatcca gatgtcatc
1861 ttactcattg ccacctccct ggtggtgctc atctgtccca tcccgtcgt ggtgagtgc
1921 cgggggtggg gccctactcg gccttttctc cgcattccacc tcccgcgtcc attcccgcct
1981 ccctgttttc cctctgagtc cttgggagtg aacgtgtcgc ctttaggtcg gggctgggat
2041 tcccacactg tttctcagag gaggcccaac cctcttttg aagtcccaac cctaacgcga
2101 tttagcaggt gctttggccc tacatcccc agtttatgtt tcccggaagg ctgg
```

(2) INFORMATION FOR SEQ ID NO:2613:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 840 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2613

```
1 agcccatgac tggtttttct gaggttatt atgtagcttc ctcttttctt ggaacttggt
61 accagaaatg aaggcagctt cctaattatg ataaggtaga catagcattt atatgttttc
121 ccaattgatt aatgatgaaa tctaaatgtg cgactcactt atgcagggtc gagtattcgt
181 caaccagtta tatcagccaa gtttgagcgc agaagtcagt aaaaatccag atttgaggc
241 catccgaatt gcttctgtga accccatcct agaccctggt atatatatcc tctgagaaa
301 gacagtgtct agtaaagcaa tagagaagat caaatgcctc ttctgcgcga ttggcgggtc
361 ccgcaggagg cgctccggac agcactgtc agacagtcaa aggacatctt ctgccatgtc
421 aggccactct cgtctcttca tctcccggga gctgaaggag atcagcagta catctcagac
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(2) INFORMATION FOR SEQ ID NO:2614:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9060 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2614

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(2) INFORMATION FOR SEQ ID NO:2615:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4866 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2615

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3901 ttgattttgc tgtctgagat caatctgaaa agtaataata atcactaaca tttgttgagc
3961 atcaattgtg ggccaagtgt catttcaatc actctgtaca tattaactca tttcatccta
4021 caacaacccg gtgaggcaag ttctgttatt ctgttttaca gttgaggaaa cagaggcata
4081 gagagcttaa gtagtttgcc cagtagatag ccagaagagg agccaggatg ggtctcgggc
4141 agtttaacag cacagctgaa gtcttaacca ctatgccaac agcttttttg tctacacat
4201 cccatgggaa gaggaaaata aaaaggatc tatttgtata cctttttatt tctgatataa
4261 gaagcagaat tcctttcaca tgacctatgt ctatttaata cgctattttg aaacttacca
4321 ataaaatttc ccaagcgcca gaaaactgtt agtggctttt tccattcttc tctatttttt
4381 tttgtgctac taattttgct tctttccctc agaagctgc cggaatagta aacattcact
4441 gacatgtcat aattactgga aaatgggcac tggaaaatca cattgttaatt aattcaaagc
4501 atgttttcca aatgtactac tttaaattgg agcttatatc ataatccaag gaaacctttg
4561 tgtgtgtact gttccacat tgctcagcct gggatatcca ggagtaattc acctgagcc
4621 tgctccaga ccatcttcca tggaagggg tgacctgtg cctcttgcca accactattt
4681 ctaagctgcc aacattactc ttgcattatc aacattctaa ctctatggga agggctgtgg

4741 tgagtttctg gaatgtgaat aggaagttgt ttttctaaac agcctgacac tgaggggagg
 4801 cagtgcagact gtaagcagtc tgggttgggc agaaggcaga aaaccagcag agtcacagag
 4861 gagatg

(2) INFORMATION FOR SEQ ID NO:2616:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1016 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2616

```

1 gtcgaggatc cctaaagtcc tttgaagctt tcatattctg taacttttgt gccagaaggg
61 ccttacagtg agatggggtc ccagttattt ttgagtttcc tcatcctata aatgggggata
121 ataatagtaa atgagttgac acgcgctaag acagtggagt agtgggtggc acagataaagc
181 cctcggtaaa tggtagccaa taatgataga gtatgctgta agatatcttt ctctccctct
241 gcttctcaac aagtctctaa tcaattattc cactttataa acaaggaaat agaactcaaa
301 gacattaagc acttttccaa aggtcgctta gcaagtaaat gggagagacc ctatgaccag
361 gatgaaagca agaaattccc acaaggaggc tcattccaac tcatatcttg tgaaaagggt
421 cccaatgccc agctcagatc aactgcctca atttacagtg tgagtgtgct cacctccttt
481 ggggactgta tatccagagg accctcctca ataaaacact ttataaataa catccttcca
541 tggatgaggg aaaggaggta agatctgtaa tgaataagca ggaactttga agactcagtg
601 actcagttag taataaagac tcagttagct ctgatcctgt cctaactgcc actccttggt
661 gtccaagaaa agcggcttcc tgctctctga ggaggacccc ttccctggaa ggtaaaacta
721 aggatgtcag cagagaaatt ttccaccat tgggtgcttg tcaaagagga aactgatgag
781 ctcaactctag atgagagagc agtgaggag agacagagac tcgaatttcc ggagctatct
841 cagttttctt ttccgttttg tgcaatttca cttatgatac cggccaatgc ttggttgcta
901 ttttggaaac tccccttagg ggatgcccct caactggccc tataaagggc cagcctgagc
961 tgcagaggat caagacagca cgtggacctc gcacagcctc tcccacaggt accatg

```

(2) INFORMATION FOR SEQ ID NO:2617:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1160 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2617

```

1 cctccgacag cctctccaca ggtaccatga aggtctccgc ggcacgcctc gctgtcatcc
61 tcattgctac tgccctctgc gctcctgcat ctgcctcccc atattcctcg gacaccacac
121 cctgtgtgct tgccctacatt gcccgcctac tgcccgtgac ccacatcaag gagtatttct
181 acaccagtgg caagtgtctc aaccagcagc tegtctttgt caccgaaag aaccgccaag
241 tgtgtgccaa ccagagaaag aaatgggttc gggagtacat caactctttg gagatgagct
301 aggatggaga gtccttgaac ctgaacttac acaaatttgc ctgtttctgc ttgctcttgt
361 cctagcttgg gaggttcccc ctactatcc taccaccacc gctccttgaa gggcccagat
421 tctgaccacg acgagcagca gttacaaaaa ccttccccag gctggacgtg gtggctcagc
481 cttgtaatcc cagcactttg ggaggccaag gtgggtggat cacttgaggt caggagtctg
541 agacagcctg gccaacatga tgaaacccca tgtgtactaa aaatacaaaa aattagccgg
601 gcgtggtagc gggcgctctg agtcccagct actcgggagg ctgaggcagg agaattggct
661 gaacccggga ggggagcttg cagttagccg agatcgcgcc actgcactcc agcctgggag
721 acagagcgag actccgtctc aaaaaaaaaa aaaaaaaaaa aaaaaataca aaaattagcc
781 gcgtggtggc ccacgcctgt aatcccagct actcgggagg ctaaggcagg aaaattgttt
841 gaacccagga ggtggaggct gcagttagct gagattgtgc cacttcactc cagcctgggt
901 gacaaagtga gactccgtca caacaacaac aacaaaaagc ttcccactaa aaagcctaga
961 agagcttctg aggcgctgct ttgtcaaaaag gaagtctcta ggttctgagc tctggctttg
1021 ccttggcttt gcaagggctc tgtgacaagg aagggaagtc gcatgcctct agaggcaagg
1081 aaggaggagg cactgcactc ttaagcttcc gccgtctcaa cccctcacag gagcttactg
1141 gcaaacatga aaaatcgggg

```

(2) INFORMATION FOR SEQ ID NO:2618:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2176 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2618

```

1  gtcgaggatc cctaaggtcc tttgaagctt tcatattctg taacttttgt gccaagaagg
61  ccttacagtg agatgggagc ccagttatga ttgagtttcc tcattcataa aatggggata
121 ataatagtaa atgagttgac acgcgctaag acagtggaat agtggctggc acagataagc
181 cctcggtaaa tggtagccaa taatgataga gtatgctgta agatatcttt ctctccctct
241 gcttctcaac aagtcctctaa tcaattattc cactttataa acaaggaaat agaactcaaa
301 gacattaagc acttttccaa aggtcgctta gcaagtaaat gggagagacc ctatgaccag
361 gatgaaagca agaaattccc acaagaggac tcattccaac tcatatcttg tgaaaagggt
421 cccaatgccc agctcagatc aactgcctca atttacagtg tgagtgtgct cacctccttt
481 ggggactgta tatccagagg accctcctca ataaaaact ttataaataa catccttoca
541 tggatgaggg aaaggaggta agatctgtaa tgaataagca ggaactttga agactcagtg
601 actcagtgag taataaagac tcagtgaact ctgatcctgt cctaactgcc actccttggt
661 gtcccaagaa agcgggtctc tgetctctga ggaggacccc ttccctggaa ggtaaaacta
721 aggatgtcag cagagaaatt ttccaccat tgggtgcttg tcaaagagga aactgatgag
781 ctcaactctag atgagagagc agtgaggagg agacagagac tcgaatttcc ggagctattt
841 cagttttctt ttccgttttg tgcaatttca cttatgatac cggccaatgc ttggttgcta
901 ttttggaaac tccccttagg ggatgccctc caactggccc tataaagggc cagcctgagc
961 tgcagaggat caagacagca cgtggacctc gcacagcctc tcccacaggt accatg
1  cctccgacag cctctccaca ggtaccatga aggtctccgc ggcacgcctc gctgtcatcc
61  tcattgctac tgccctctgc gctcctgcat ctgcctcccc atattcctcg gacaccacac
121 cctgctgctt tgcctacatt gcccgcccac tgcccgtgac ccacatcaag gagtatttct
181 acaccagtg caagtgtctc aaccagcagc tegtctttgt caccgaaaag aaccgccaag
241 tgtgtgccaa cccagagaag aaatgggttc gggagtacat caactctttg gagatgagct
301 aggatggaga gtccttgaac ctgaacttac acaaatgtgc ctgtttctgc ttgctcttgt
361 cctagcttgg gaggcttccc ctcaactatc taccacccc gctccttgaa gggcccagat
421 tctgaccacg acgagcagca gttacaaaaa ccttcccag gctggacgtg gtggctcagc
481 cttgtaatcc cagcactttg ggaggccaag gtgggtggat cacttgaggt caggagtctg
541 agacagcctg gccaacatga tgaaccccca tgtgtactaa aaatacaaaa aattagccgg
601 gcgtggtagc gggcgctgt agtcccagct actcgggagg ctgaggcagg agaatggcgt
661 gaaccgggga gcggagcttg cagtgaagcc agatcgcgcc actgcactcc agcctgggag
721 acagagcgag actcctgtctc aaaaaaaaaa aaaaaaaaaa aaaaaataca aaaattagcc
781 gcgtggtggc ccacgcctgt aatcccagct actcgggagg ctaaggcagg aaaattgttt
841 gaaccagga ggtggaggct gcagtgaact gagattgtgc cacttcactc cagcctgggt
901 gacaaagtga gactccgtca caacaacaac aacaaaaagc tcccccaact aaagcctaga
961 agagcttctg aggcgctgct ttgtcaaaag gaagtctcta ggttctgagc tctggctttg
1021 ccttggtctt gcaagggtc tgtgacaagg aagggaagtca gcatgcctct agaggcaagg
1081 aaggaggaa cactgcactc ttaagcttcc gccgtctcaa cccctcacag gagcttactg
1141 gcaaacatga aaatcgggg

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(2) INFORMATION FOR SEQ ID NO:2619:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4003 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2619

```

1  attaaacctc tcgccgagcc cctccgcaga ctctgcgcgg gaaagtttca tttgctgtat
61  gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctgcagagtc
121 ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttggttg
181 ggcacaaggt ggcaggatgt ctcaagtgtg cgaacttcag cagcttgact caaaattcct
241 ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc
301 acagtgttta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagaccca attcagatgt ctatgatcat ttacagctgt ctgaagggaag aaaggaaaat
541 tctggaaaac gccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat
601 gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
661 tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa
721 aaaccttgca aacagagaac acgagaccaa tgggtgtggc aagagtgatc agaaacaaga
781 acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca
841 caaaataata gagttgctga atgtcactga acttaccag aatgcctga ttaatgatga

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901 actagtggag tggaaagcga gacagcagag cgcctgtatt ggggggcccgc ccaatgcttg
 961 cttggatcag ctgcagaact gggtcactat agttgcggag agtctgcagc aagttcggca
 1021 gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac
 1081 aaaaaacaaa caagtgttat gggaccgcac cttcagtcct tccagcagc tcattcagag
 1141 ctcgtttttg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt
 1201 gaagacaggg gtcaggttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa
 1261 ttataatttg aaagtcaaaag tcttatttga taaagatgtg aatgagagaa atacagttaa
 1321 aggatattag aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
 1381 caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc
 1441 tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt
 1501 tgaaccccaa ttgtgccagc ctggttttgt aattgacctc gagacgacct ctctgccctg
 1561 gcttttgatt gaaagcatcc tagaactcat gaggcggttg gcctccatcc tttgttacia
 1621 catgctggtg gcggaaccca ggaatctgtc cttcttcttg actccaccat gtgcacgatg
 1681 ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcacacaaa gaggtctcaa
 1741 tgtggaccag ctgaacatgt tgggagagaa gcttcttggt cctaaccgca gccccgatgg
 1801 tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttccttctg
 1861 gcttttgatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga
 1921 tgggtgcate atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca
 1981 gccggggacc ttcctgctgc gggtcagtg gagctcccgg gaaggggcca tcacattcac
 2041 atgggttgag cgtccccaga acggaggcga acctgacttc catgcggttg aaccttacac
 2101 gaagaaagaa cttctgtctg ttactttccc tgacatcatt cgcaattaca aagtcatggc
 2161 tcttgagaaat attcctgaga atccccgaa gtatctgtat ccaaattattg acaaaagacca
 2221 tgccttttga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg
 2281 ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcaccttc
 2341 tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc
 2401 tcgtagtagt ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt
 2461 ttttcatctt cctggcgac agttttcctt ctcactgtg attccctcct gctactctgt
 2521 tccttcacat cctgtgttct tagggaaatg aaagaaaggc cagcaaattc gctgcaacct
 2581 gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat
 2641 gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaag
 2701 aacatccaga tacacccaaa gtatcaggac gagaatgagg gtccttttgg aaaggagaag
 2761 ttaagcaaca tctagcaaat gttatgcata aagtcagtc ccaactgtta taggttgtg
 2821 gataaatcag tggttattta gggaaactgt tgacgtagga acggtaaatt tctgtgggag
 2881 aattcttaca tgttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt
 2941 gaaatagttc aaagccaagt ttatatacaa ttatatacgt cctctttcaa aggttagccat
 3001 catggatctg gtgggggaa aatgtgtatt ttattacatc tttcacattg gctattttaa
 3061 gacaaagaca aattctgttt cttgagaaga gaattattagc tttactgttt gttatggctt
 3121 aatgacacta gctaatatca atagaaggat gtacatttcc aaattcaciaa gttgtgtttg
 3181 atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt
 3241 ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aacctatgat
 3301 gttagataac tcagaaattt aattcatgtt tcttaaatgg gctactttgt cctttttgtt
 3361 attaggggtg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa
 3421 ctgacaactt gaataatata ccagagataa tatgagaatc agatcatttc aaaactcatt
 3481 tcctatgtaa ctgcattgag aactgcata gtttcgctga tatatgtgtt tttcacattt
 3541 gcgaatggtt ccattctctc tctgtactt tttccagaca cttttttgag tggatgatgt
 3601 ttcgtgaagt atactgtatt tttacctttt tcttcccta tcactgacac aaaaagtaga
 3661 ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat
 3721 ctgttttttc cactactgct accacaacta tattatcatg caaatgctgt attctctttt
 3781 ggtggagata aagattttctt gatttttgtt ttaaaattaa agctaaagta tctgtattgc
 3841 attaaatata atatcgacac agtgccttcc gtggcactgc atacaatctg aggcctcctc
 3901 tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga
 3961 ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta

(2) INFORMATION FOR SEQ ID NO:2620:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2607 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2620

1 attaaacctc tcgccgagcc cctccgcaga ctctgcgccc gaaagtttca tttgctgtat
 61 gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc

121 ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttggttg
181 ggcacaaggt ggcagatgt ctcagtggta cgaacttcag cagcttgact caaaatctct
241 ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc
301 acagtgggta gaaaagcaag actgggagca cgtgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctctgt caccagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaa aaaggaaaat
541 tctggaaaac gccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgt
601 gttagacaaa cagaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
661 tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa
721 aaccttgacg aacagagaa acgagaccaa tgggtgaggc aagagtgtc agaacaaga
781 acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca
841 caaaataata gagggtgtga atgtcactga acttaccag aatgccctga ttaatgatga
901 actagtggag tggaaagcga gacagcagag cgcctgtatt gggggggcgc ccaatgcttg
961 cttggatcag ctgcagaact ggttcactat agttgcggag agtcgtcagc aagttcggca
1021 gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac
1081 aaaaaacaaa caagtgttat gggaccgcac cttcagctt tccagcagc tcattcagag
1141 ctgctttgtg gtggaagac agcctgcat gccaacgcac cctcagaggc cgctggtctt
1201 gaagacaggg gtccagttca ctgtgaagt gagactgttg gtgaaattgc aagagctgaa
1261 ttataatttg aaagtcaaa tcttatttga taaagatgtg aatgagagaa atacagtaaa
1321 aggatattag aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
1381 caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc
1441 tggcaccaga acgaatgagg gtctctcat cgttactgaa gagcttact cccttagttt
1501 tgaaacccaa ttgtgccagc ctggttttgt aattgacct gagacgacct ctctgccctg
1561 tgtggtgatc tccaacgtca gccagctccc gagcgggttg gcctccatcc tttggtacaa
1621 catgctggtg gcggaaccca ggaatctgtc cttcttctg actccaccat gtgcacgatg
1681 ggctcagctt tcagaagtgc tgagttggca gtttcttct gtcacaaaa gaggtctcaa
1741 tgtggaccag ctgaacatgt tgggagagaa gcttcttgt cctaaccgca gccccgatgg
1801 tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt tctccttctg
1861 gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgtccctc tctggaatga
1921 tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca
1981 gccggggacc ttctgtctgc ggttcagtga gagctcccgg gaaggggcca tcacattcac
2041 atgggtggag cgttcccaga acggaggcga acctgacttc catgcggttg aacctacac
2101 gaagaaagaa cttctgtctg ttactttccc tgacatcatt cgcaattaca aagtcatggc
2161 tgctgagaat attctgaga atcccctgaa gtatctgtat ccaaattattg acaagacca
2221 tgcctttgga aagtattact ccaggccaaa ggaagcaca gagccaatgg aacttgatgg
2281 cccataagga actggatata tcaagactga gttgatttct gtgtctgaag tgaagtga
2341 cacagaagag tgacatgttt acaaacctca agccagcctt gctcctggct ggggcctgtt
2401 gaagatgctt gtattttact tttccattgt aattgctatc gccatcacag ctgaacttgt
2461 tgagatcccc gtgttactgc ctatcagcat tttactactt taaaaaaaa aaaaaagcc
2521 aaaaacaaa tttgtattta aggtatata atttcccaa aactgatacc ctttgaaaaa
2581 gtataaataa aatgagcaaa agttgaa

(2) INFORMATION FOR SEQ ID NO:2621:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 97 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2621

1 ttactaagat gattattgtt ttatagcaat tgaagaaca gaaaaatgct ggcaccagaa
61 cgaatgaggt gagagtgtt tatgttgtga atgggccc

(2) INFORMATION FOR SEQ ID NO:2622:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 199 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2622

1 acgacctctc tgcccgttgt ggtgatctcc aacgtcagcc agctcccag cggttgggcc
61 tccatccttt ggtacaacat gctggtgttg gcggaacca gggtatgaa aacacattgt
121 ctttggcccc aggggttaag cagagacccc acgctctcgc tgctgcatct cgctgctgca

181 tctctgaaat agccccaat

(2) INFORMATION FOR SEQ ID NO:2623:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 100 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2623

1 ggtctcaatg tggaccagct gaacatgttg ggagagaagc ttcttggtat atgcatatta
61 acttggtatg ttataaaaa ttgaaattca taaaaatatc

(2) INFORMATION FOR SEQ ID NO:2624:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 150 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2624

1 ctgatcagta gaaaacatgt ttacatcttt gttttagtg tatagagcat gaaatcaaga
61 gcctggaaga ttacaagat gaatatgact tcaaatgcaa aaccttgag aacagaggta
121 agggttcaca actgaagtgg tgcccgttgg

(2) INFORMATION FOR SEQ ID NO:2625:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2625

1 attaaacctc tcgccgagcc cctccgcaga ctctgcgcgc gaaagtttca tttgctgtat
61 gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctgcacagtc
121 ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccag cccttggttg
181 ggcacaaggt ggcaggatgt ctcatgtgta cgaacttcag cagcttgact caaaattcct
241 ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc
301 acagtgggta gaaaagcaag actgggagca cgtgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagacca atccagatgt ctatgatcat ttacagctgt ctgaaggaa aaaggaaaat
541 tctggaaaac gccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgt
601 gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
661 tatagagcat gaaatcaaga gcctggaaga ttacaagat gaatatgact tcaaatgcaa
721 aaccttgag aacagagaa acgagaccaa tgggtgagca aagagtgtc agaacaaga
781 acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca
841 caaaataata gatttgctga atgtcactga acttaccag aatgccctga ttaatgatga
901 actagtggag tggaaagcga gacagcagag cgctgtatt ggggggccc ccaatgcttg
961 cttggatcag ctgcagaact ggttcaact atgtgcggag agtctgcagc aagttcggca
1021 gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac
1081 aaaaaacaaa caagtgttat gggaccgcac cttcagcttt ttccagcagc tcattcagag
1141 ctcgtttgtg gtggaaaagc agccctgcat gccaacgcac cctcagaggc cgctggtctt
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1261 ttataatttg aaagtcaaa tcttatttga taaagatgtg aatgagagaa atacagtaaa
1321 aggatattag aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
1381 caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc
1441 tgtggaccag acgaatgagg gtcctctcat cgttactgaa gagcttcaact cccttagttt
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1561 tgtggtgac tcacaacgtca gccagctccc gagcggttg gcctccatcc tttggtacaa
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1681 ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcacaaaa gaggtctcaa
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 2161 tgctgagaat attcctgaga atccctgaa gtatctgtat ccaaatattg acaaagacca
 2221 tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg
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 2461 ttttcatctt ctctggcgac agttttcctt ctcactgtgt attccctcct gctactctgt
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 2581 gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat
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 2701 aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag
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 2821 gataaatcag tggttattta gggaaactgt tgacgtagga acggtaaatt tctgtgggag
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 2941 gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat
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 3061 gacaaagaca aattctgttt cttgagaaga gaattattgc tttactgttt gttatggctt
 3121 aatgacacta gctaataatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg
 3181 atatccaaag ctgaatacat tctgtcttca tcttgggtcac atacaattat tttacagtt
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 3361 attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa
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 3481 tcttatgtaa ctgcattgag aactgcataat gtttcgttga tatatgtgtt tttcacattt
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 301 acagtgggta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
 361 ccgttttctt gacctctgtg cacagctgga tgatcaatat agtcgctttt ctttgagaa
 421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
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 1981 gccggggacc ttccctgtgc ggttcagtga gagctcccg gaaggggcca tcacattcac
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 1 acgacctctc tgcccgttgt ggtgatctcc aacgtcagcc agctcccgag cggttgggccc
 61 tccatccttt ggtacaacat gctggtgttg gcggaacca gggataggaa aacacatttg
 121 ctttgggtccc agggtttaag cagagacccc acgctctcgc tgctgcatct cgctgctgca
 181 tctctgaaat agccccaat
 1 ggtctcaatg tggaccagct gaacatgttg ggagagaagc ttcttggat atgcatatta
 61 acttgttatg ttataaaaa ttgaaattca taaaaatc
 1 ctgatcagta gaaaacatgt ttacatcttt gttttagtag tatagagcat gaaatcaaga
 61 gcctggaaga ttacaagat gaatatgact tcaaatgcaa aaccttgacg aacagaggta
 121 agggttcaca actgaagtgg tgcccgttgg

(2) INFORMATION FOR SEQ ID NO:2626:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18648 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2626

1 tcaagatcag cctgggcaac atggcgaaac cccgtctcta caataaatac aaaaaatta
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 121 acctgagcct gggaggctga ggctgcagcg agccgagatc ggccgctgca ttccagcctg
 181 ggtgacagag cgagaccatg tctcaaaaaa taaaaattaa aaaaaaattg ttttcattac
 241 ctcagccctc ctcttctctat cccaaggcgt cgaaattccg gtcccccccc ttcccatgga
 301 gcccttggtg tctccagcct cctcaagcta gtttcggttc cgggctcagc cgcggttctt
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2761 tgtttgttaa agctggatgg tgatccttgt actattcact ctactctagt gtgtatttga
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5101 attttgatcc aggtctcagc ggcccaattg gtgaggacaa ttcagtggta atgttgaaa
5161 ctctgtaagt agagaggaac catggaagg actcaggag tgtctcaga acaggatccc
5221 cccgacatcc tgtggtataa tttcaggcct gaacttaagg catgaaaggc cagagttaa

5281 acgtgctcag agcctctttt ttcaggaaca aggagagcca gttctcgaaa cacctgtgga
5341 gagccagcaa catgagattg aatccccgat cctggattta agggctatga tggaggttag
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6001 acccccatca gaccaaagag cagaagattc tgcaggaaac tctcaatgaa ctggacaaaa
6061 ggagaaaggt gggaggcagc agaacagAAC atgtgggcaa caaggacctg aaaaaatgag
6121 ggatgttggg aaccttggtA atctagcgtt ggcttctttc tttcttcac cccagttggg
6181 tgggtggagg tgaaggagg agatgctcaa cactcacatt atctctttcc caggaggtgc
6241 tggatgcctc caaagcactg ctaggccgat taactaccct aatcgagcta ctgctgcaa
6301 agttggagga gtggaagcc cagcagcaaa aagcctgcat cagagctccc attgaccacg
6361 ggttgaaca gctggagaca tggtagaggg taccacccca accctcgtcc tgcctatgag
6421 ctgtgatttg taagtgtcag tgcctgcat atagcaagag atactgttct ctatttgtct
6481 ctgtcccca gaatagagcc ctgtccctg cctgactgca gctctattct gctcctcag
6541 cctcaccacg caggaagcc cagaagtcct agtctcctc agggaaagga atgaattaac
6601 ccacaatctg gttttgtctc ttttttttaa tcaccagaa atatatatat atgtattttt
6661 tttttactgc aacgaataca atgacaagaa aggaaggga ggaaggagg aagagaaat
6721 tacctattac ctactgtatt aaacaaaaat ggaatcatat tgtccatact attttgaaat
6781 ccattgggtt ttttttaagc ttaacagtat tttatatata tatatatata tatatatata
6841 tatatatata tatatttttt tttttttttt tttttttttt tttttttttt ttttgagacg
6901 gagtctctct ctgttccctg gctggcggag cggagtcggc acgatctcag ctcaactgcaa
6961 cttccaactc ccacggttca agccaattct cctgtctcag cctcccgagc ctgggattac
7021 caggcacaca ccagcctggc tagttttttt gatttttttag tagagacgat gtttctccat
7081 gttggccagg ctggtctcaa actcctgact tcaggtgac caccacactt gggctcccaa
7141 agtgctggga ttacaggcgt gacgaccatg cccggccaac agtatattat atttatccat
7201 gttatttctt atgtccacac aacagtcccc tatatggttg taacataatt taattaatga
7261 actcctattt tcagctattt aggttatttt caatttcttg ttaccttttg ccaggaaacg
7321 tatattttat ggtaattata ttgtgttgta gaaaaatcac tagtctagt ccaacttgctt
7381 gaaaaatagc tactttttta ctattttctc atttaaaat ttattataat ttagtctttt
7441 agaaatatac caggccagcg atggcgtctc atgctgttta tcctagtact ttggaaggct
7501 gaggacggag gatcacttca gtcttggggg ttgagaccag cccgggaaac ataacaagac
7561 cccatctcta caaaaaaaaa aaattgtttt taattaggca tgtccgacac agtggtctac
7621 acatgtggcc agcactgtgg gaaggccaag gtgggtggat cacttgaggg tcaggagtct
7681 aagaccagcc tgccaatgt ggtgaaaccc catctctact aaaaatacaa aaatttgcca
7741 ggtgtgtggg cgcatgcctg tattccagc tactcaggag gctaaggcag gaaatcactt
7801 gaactcggag gcagaggttg cagtgagctg tgacaatgcc actgtactcc agcctgggtg
7861 acagagcgag ctccgtctca aaaaaaaaaa aaaaagatta ggcatggtgg cacacgcctg
7921 tagaccctag ctactcagga ggctgaggtg ggaggattgc ttgagcccag gtgttgaggg
7981 ctgcagttag ccatgattat accactgtag tccagcctgg acaacagAAC gagaccctgt
8041 ctctaaaagt atatatgtac acataccata ataccagct actgaggagg ctgaggcaga
8101 aagagtgtt gagtccagga gtttgatgtc agcctgagca atatagcaag accctcacct
8161 cttaaaaaaa tttaaagtag attaaaaaaa taccacaatt gctcaggtag attaaaaaaa
8221 taccacaatt gctcaggtag attattgaaa aacaggcata tagtacttat ggtacaggac
8281 cagcatgcat gcatgcatgc attgattgat tgattgattg attgattgag acagggtctc
8341 tctctgtctc ccaggctgga gtgcctggcc ttaagtgate tgcacacctt tgcttcccaa
8401 agtctgaga ttacaggtgt gagccaccat gtcagctggc gaggtttttt aaaagatagt
8461 tccaagtgtt acagctcttt taggatttgt ctagcaggct ttcaggtttt tgccagaaac
8521 cccccccacc cccacaaaaa aaaaaaaaaa aaaaaagata tgtacaagt cccagatagt
8581 gtcccaact gaactctatt ctcatgtgta gtgtatggtt gtttctcctg caccacattg
8641 ctgattatta ttatttttaa ttatagagac agtaaagtac agtagttaaa aatgtgagtt
8701 ggggtgtggg gcagtggctc acacctgtaa tccagcact ttgggaggcc aaggtgggag
8761 gatcacctga ggtcaggagt tcaagaccag ctggccaac atggcaaac cccgtctcga
8821 ctaaaaatat atatatataa gttagccggg cgtgggtggca acattacctg taatccagc
8881 tactcgggag gccaacaggc aggagaatct cttgaatcca ggagggtgag gttgcagtga
8941 gccagatcac accattgcac tccagcctgg atgacaagag agtgagactg tctaaaaaaa

16441 gtcaagtttt gtacctaagg tacgtggcta atgatacagg tctgttagat tccgtagccc
16501 tgattttaac caccctactg cctctcaaga attactaggt attgtttctca tttatagatg
16561 ataaaactga ggctcagaaa agtttagcca ctgacctaa gtccccagc caggattcaa
16621 actccaggag gcctgattcc aaacccatgc tctttagccc tccgccctac tgccttctta
16681 gactagcttc tgettattct accattcctg atttcatttg aaccactgag ccctgcccct
16741 ttgtctgtct ttgggtatcc aggcagggtg atgaactgca acaaccgctg gagcttaagc
16801 cagagccaga gctggagtca ttagagctgg aactagggtt ggtgccagag ccagagctca
16861 gcctggactt agagccactg ctgaaggcag gctggatct ggggccagag ctagagctctg
16921 tgctggagtc cactctggag cctgtgatag agcccacact atgcatggtg tcacaaacag
16981 tgccagagcc agaccaagga cctgtatcac agccagtgc agagccagat ttgccctgtg
17041 atctgagaca tttgaacact gagccaatgg aaagtaagtg atgagatgga gtggcacaca
17101 ttcccttttc tacctcttct cctctcccca ttacagaaaa agctgaactc caagctctc
17161 attggagaga ggtccatctg tgattccctt ttttaggaat tacacatgcc tccccacc
17221 tccctgctct ttcattccac aagttccac tcaggctctt cccaggcctt tctgcccac
17281 ctccctccct tgggctgctg ggttgggaac tctaactaa gatcggggc tacttttct
17341 ctctggatta cctagtcttc agaaactgtg taaagattga agaaatcatg ccgaatggtg
17401 acccactgtt ggtggccag aacaccgtg atgaggttta cgtctccgc cccagccact
17461 tctacactga tggacccttg atgcctctg acttctagga accacatttc ctctgttctt
17521 ttcatacttc tttgcccttc ctactctca tagcatgata ttgttctcca aggatgggaa
17581 tcaggcatgt gtccttccca agctgtgtta actgttcaaa ctcaggcctg tgtgactcca
17641 ttgggggtgag aggtgaaagc ataactggg tacagagggg acaacaatga atcagaacag
17701 atgctgagcc ataggtctaa ataggatctt ggaggctgc tgctgtgctg ggaggtatag
17761 gggctcctgg ggcaggccag ggcagttgac aggtacttg agggctcagg gcagtggctt
17821 ctttccagta tgggaaggatt tcaacatttt aatagttggt taggctaaac tgggtgcatac
17881 tggcattggc ctgtgtggg agcacagaca caggatagga ctccatttct tcttccatt
17941 ctttcatgtc taggataact tgctttcttc tttcctttac tcttggtca agccctgaat
18001 ttcttctttt cctgcagggg ttgagagctt tctgccttag cctaccatgt gaaactctac
18061 cctgaagaaa gggatggata ggaagtagac ctcttttct taccagtctc ctcccact
18121 ctgcccccta agctggctgt acctgttct ccccataaa atgactctgc caatctaata
18181 tgagtgtgaa gtttgacac tagtttatgc tacctagtct ccactttctc aatgcttagg
18241 agacagatca ctctggagg ctggggatgg taggattgct ggggattttt ttttttttaa
18301 agagggtctc actctgttgc ccaggctaga gtgcaatggt gcaatcacag ctactgcag
18361 cctcaacctc ctgggttcaa gcaatcctcc tacctcagcc tcttggttag ctagaccat
18421 ggcacgcca ccatgcccta ttttttttt ttaaagacag ggtcttgcta tattgccag
18481 gctggtcttg aactgggctc aagtgtacct caccgcttgc ctcccaaaagt gctgggatta
18541 taggcatgag ccactgtgct tggccaggat ttttttttt ttttttttga gatggagttt
18601 ctctcttggt gtccaggctg gagtgaatg gtgtgatccg gggaattc

(2) INFORMATION FOR SEQ ID NO:2627:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2787 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2627

1 cagctggaat tcggggcggc ggcgcagact gggaggggga gccgggggtt ccgacgtcgc
61 agccgaggga acaagcccca accggtacct ggacaggcac ccggtcttgg cgtgtctct
121 cccctcggc tcggagaggc ctttcggcct gagggagcct cgccgccctg ccccgccaca
181 cgcgcagccc cggcctctcg gctctgccc gagaaacagg atggccaat ggaatcagct
241 acagcagctt gacacacggt acctggagca gctccatcag ctctacagtg acagcttccc
301 aatggagctg cggcagtttc tggcccttg gattgagagt caagattggg catatgcggc
361 cagcaaagaa tcacatgcca ctttggtgtt tcataatctc ctgggagaga ttgaccagca
421 gtatagccgc ttcttgcaag agtcgaatgt tctctatcag cacaatctac gaagaatcaa
481 cgagtttctt cagagcaggt atcttgagaa gccaatggag attgcccga ttgtggccc
541 gtgcctgttg gaagaatcac gccttctaca gactgcagcc actgcggccc agcaagggg
601 ccaggccaac cccccacag cagccgtggt gacggagaag cagcagatgc tggagcagca
661 cttcaggat gtccggaaga gagtgcagga tctagaacag aaaatgaaag tggtagagaa
721 tctccaggat gactttgatt tcaactataa aacctcaag agtcaaggag acatgcaaga
781 tctgaatgga aacaaccagt cagtaccag gcagaagatg cagcagctgg aacagatgct
841 cactgcgctg gaccagatgc ggagaagcat cgtgagttag ctggcggggc ttttgtcagc
901 gatggagtac gtgcagaaaa ctctcacgga cgaggagctg gctgactgga agaggcggca
961 acagattgcc tgcattggag gcccgcccaa catctgccta gatcggttag aaaactggat

1021 aacgtcatta gcagaatctc aacttcagac ccgtcaacaa attaagaaac tggaggagt
1081 gcaccaaaaa gtttcttaca aaggggaccc cattgtacag caccggccga tgctggagga
1141 gaggatcgtg gagctgttca gaaacttaat gaaaagtgcc tttgtggtgg agcggcgagcc
1201 ctgcatgcc atgcatcctg accggcccct cgtcatcaag accggcgctc agttcactac
1261 taaagtcagg ttgctggtca agttccctga gttgaattat cagcttaaaa ttaaagtggtg
1321 cattgacaaa gactctgggg acgttgacgc tctcagagga tcccggaaat ttaacattct
1381 gggcacaac acaaaaagtga tgaacatgga agaattccaac aacggcgagcc tctctgcaga
1441 attcaaacac ttgaccctga gggagcagag atgtgggaat gggggccgag ccaattgtga
1501 tgcttccctg attgtgactg aggagctgca cctgatcacc tttgagaccg aggtgtatca
1561 ccaaggtctc aagattgacc tagagacca ctccttgta gttgtggtga tctccaacat
1621 ctgtcagatg ccaaatgcct gggcgctccat cctgtggtac aacatgctga ccaacaatcc
1681 caagaatgtg aacttcttca ctaagcgcc aattggaacc tgggaccaag tggccgaggt
1741 gctcagctgg cagttctcgt ccaccaccaa gcgggggctg agcatcgagc agctgacaac
1801 gctggctgag aagctcctag ggcctggtgt gaactactca ggggtgtcaga tcacatgggc
1861 taacttctgc aaagaaaaca tggctggcaa gggcttctcc tactgggtct ggctagacaa
1921 tatcatcgac ctgtgaaaa agtatatctt ggccttttgg aatgaagggt acatcatggg
1981 tttcatcagc aaggagcggg agcgggccc cttgagcact aagccccag gcaccttctc
2041 gctgcgcttc agtgaaagca gcaagaagg aggcgtcact ttcacttggg tggagaagga
2101 catcagcggg aagaccaga tccagtcctg ggaaccatac acaaagcagc agctgaacaa
2161 catgtcattt gctgaaatca tcatgggcta taagatcatg gatgctacca atatcctgtt
2221 gtctccactt gtctatctct atcctgacat tcccaggag gaggcattcg ggaagtattg
2281 tcggccagag agccagagc atcctgaagc tgaccaggt agcgtgccc catacctgaa
2341 gaccaagttt atctgtgtga caccaacgac ctgcagcaat accattgacc tgcgatgtc
2401 ccccgcgct ttagattcat tgatgcagtt tggaaataat ggtgaagggt ctgaaccctc
2461 agcaggaggg cagtttgagt ccctcacctt tgacatggag ttgacctcg agtgcgctac
2521 ctcccccatg tgaggagctg agaacggaag ctgcagaaag atacgactga ggcgcctacc
2581 tgcattctgc caccctcac acagccaaac cccagatcat ctgaaactac taactttgtg
2641 gttccagatt ttttttaatc tcctacttct gctatctttg agcaatctgg gcacttttaa
2701 aaatagagaa atgagtgaat gtgggtgatc tgcttttatt taaatgcaaa taaggatgtg
2761 ttctctgaga cccatgatca ggggatg

(2) INFORMATION FOR SEQ ID NO:2628:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 219 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2628

1 cgacagcgac cagatcaagg aggaactgcc ggagcccttt gagcatcttc tgcagagaat
61 cgcccgagga cccaagctc agcagttctt tggattaatg ggcaaacggg atgctggaca
121 tggccagatc tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaaag
181 agctttaaat tctgtggctt atgaaaggag tgcaatgca

(2) INFORMATION FOR SEQ ID NO:2629:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1021 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2629

1 gagagtgcgg agcgaccagc tgcgctcgga ggaaccagag aaactcagca ccccgcgga
61 ctgtccgtcg caaaatccaa catgaaaatc ctgctggcct tggcagttct ttttcttctg
121 tccactcagc tgtttgcaga agaaatagga gccaatgatg atctgaatta ctggtccgac
181 tggtagcaga gcgaccagat caaggaggaa ctgcccagc cctttgagca tcttctgcag
241 agaatcgccc ggagacccaa gcctcagcag ttctttggat taatgggcaa acgggatgct
301 gattcctcaa ttgaaaaaca agtggccctg ttaaaggctc tttatggaca tggccagatc
361 tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaaag agcttttaaat
421 tctgtggctt atgaaaggag tgcaatgcag aattatgaaa gaagacgtta ataaactacc
481 taacattatt tattcagctt catttgtgtc aatgggcaat gacaggtaaa ttaagacatg
541 cactatggg aataattatt tatttaataa caattgttta gggttgaaaa ttcaaaaagt
601 gtttatttt catattgtgc caatatgtat tgtaaacatg tgttttaatt ccaatatgat
661 gactccctta aatagaaat agtggttat ttctcaacaa agcacagtgt taaatgaaat
721 tgtaaaacct gtcaatgata cagtccttaa agaaaaaaa tcattgcttt gaagcagttg

781 tgtcagctac tgcggaaaag gaaggaaact cctgacagtc ttgtgctttt cctatttgtt
 841 ttcattggtga aaatgtactg agattttggt attacactgt atttgtatct ctgaagcatg
 901 tttcatgttt tgtgactata tagagatggt tttaaaagtt tcaatgtgat tctaattgct
 961 tcatttcatt gtatgatgtg ttgtgatagc taacatttta aataaaagaa aaaatatctt
 1021 g

(2) INFORMATION FOR SEQ ID NO:2630:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1102 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2630

1 gcgcccgaag gcaactgagca ggcgaaagag cgcgctcgga cctccttccc ggccggcagct
 61 accgagagtg cggagcgcacc agcgtgcgct cggaggaacc agagaaactc agcacccccgc
 121 gggactgtcc gtcgcaaaat ccaacatgaa aatcctcgtg gccttggcag tcttttttct
 181 tgtctccact cagctgtttg cagaagaaat aggagccaat gatgatctga attactggtc
 241 cgactggtac gacagcgcacc agatcaagga ggaactgccg gagccctttg agcatcttct
 301 gcagagaatc gccccggagac ccaagcctca gcagttcttt ggattaatgg gcaaaccggga
 361 tgcgtgattcc tcaattgaaa aacaagtgcc cctgttaaaag gctccttatg gacatggcca
 421 gatctctcac aaaagacata aaacagattc ctttgttggc ctaatgggca aaagagcttt
 481 aaattctgtg gcttatgaaa ggagtgcatt gcagaattat gaaagaagac gttaataaac
 541 tacctaacat tatttattca gcttcatttg tgtcaatggg caatgacagg taaattaaga
 601 catgcactat gaggaataat tatttattta ataacaattg tttgggggtg aaaattcaaa
 661 aagtgtttat tttcatatt gtgccaatat gtattgtaaa catgtgtttt aattccaata
 721 tgatgactcc cttaaaatag aaataagtgg ttatttctca acaaagcaca gtgttaaatg
 781 aaattgtaaa acctgtcaat gatacagtc ctaaaagaaa aaaatcattg ctttgaagca
 841 gttgtgtcag ctactgcgga aaaggaagga aactcctgac agtcttgtgc ttttcttatt
 901 tgttttcatg gtgaaaatgt actgagattt tggatttaca ctgtatttgt atctctgaag
 961 catgtttcat gtttgtgac tatatagaga tgtttttaa agtttcaatg tgattctaatt
 1021 gtcttcattt cattgtatga tgtgtgtgta tagctaacat tttaaataaa agaaaaaata
 1081 tcttgaaaaa aaaaaaaaaa aa

(2) INFORMATION FOR SEQ ID NO:2631:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2342 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2631

1 cgacagcgac cagatcaagg aggaactgcc ggagcccttt gagcatcttc tgcagagaat
 61 cgcccggaga cccaagcctc agcagttcct tggattaatg ggcaaacggg atgctggaca
 121 tggccagatc tctcacaata gacataaaac agattccttt gttggactaa tgggcaaaaag
 181 agctttaaat tctgtggctt atgaaaggag tgcaatgca
 1 gtagagtgcg agcgaccacg tgcgctcgga ggaaccagag aaactcagca ccccgcgggga
 61 ctgtccgctc caaaatccaa catgaaaatc ctcgtggcct tggcagtcct ttttcttgtc
 121 tccactcagc tgtttgaga agaaatagga gccaatgatg atctgaatta ctggtccgac
 181 tggtagcaga gcgaccagat caaggaggaa ctgccggagc cctttgagca tcttctgcag
 241 agaatcgccc ggagacccaa gcctcagcag ttctttggat taatgggcaa acgggatgct
 301 gattcctcaa ttgaaaaaca agtggccctg ttaaaaggctc tttatggaca tggccagatc
 361 tctcacaata gacataaaac agattccttt gttggactaa tgggcaaaaag agcttttaaat
 421 tctgtggctt atgaaaggag tgcaatgcag aattatgaaa gaagacgtta ataaactacc
 481 taacattatt tattcagctt catttgtgtc aatgggcaat gacaggtaaa ttaagacatg
 541 cactatgagg aataattatt tatttaataa caattgttta ggggtgaaaa ttcaaaaagt
 601 gtttattttt catattgtgc caatatgtat tgtaaacatg tgttttaatt ccaatatgat
 661 gactccctta aaatagaaat aagtgggtat ttctcaacaa agcacagtgt taaatgaaat
 721 tgtaaaacct gtcaatgata cagtccttaa agaaaaaaa tcattgcttt gaagcagttg
 781 tgtcagctac tgcggaaaag gaaggaaact cctgacagtc ttgtgctttt cctatttgtt
 841 ttcattggtga aaatgtactg agattttggt attacactgt atttgtatct ctgaagcatg
 901 tttcatgttt tgtgactata tagagatggt tttaaaagtt tcaatgtgat tctaattgct
 961 tcatttcatt gtatgatgtg ttgtgatagc taacatttta aataaaagaa aaaatatctt
 1021 g
 1 gcgcccgaag gcaactgagca ggcgaaagag cgcgctcgga cctccttccc ggccggcagct

61 accgagagtg cggagcgacc agcgtgcgct cggaggaacc agagaaactc agcacccegc
 121 gggactgtcc gtcgcaaaat ccaacatgaa aatcctcgtg gccttggcag tcttttttct
 181 tgtctccact cagctgtttg cagaagaaat aggagccaat gatgatctga attactggtc
 241 cgactggtac gacagcgacc agatcaagga ggaactgccg gagccctttg agcatcttct
 301 gcagagaatc gcccgagac ccaagcctca gcagttcttt ggattaatgg gcaaacggga
 361 tgctgattcc tcaattgaaa aacaagtggc cctgttaaag gctctttatg gacatggcca
 421 gatctctcac aaaagacata aaacagattc ctttgttggc ctaatgggca aaagagcttt
 481 aaattctgtg gcttatgaaa ggagtgcatt gcagaattat gaaagaagac gttataaac
 541 tacctaacat tatttattca gcttcatttg tgtcaatggg caatgacagg taaattaaga
 601 catgcactat gaggaataat tatttattta ataacaattg tttggggttg aaaattcaaa
 661 aagtgtttat tttcatatt gtgccaatat gtattgtaaa catgtgtttt aattccaata
 721 tgatgactcc cttaaaatag aaataagtgg ttatttctca acaaagcaca gtgttaaatg
 781 aaattgtaaa acctgtcaat gatacagtc ctaagaaaaa aaaatcattg ctttgaagca
 841 gttgtgtcag ctactgcgga aaaggaagga aactcctgac agtcttgtgc ttttctatt
 901 tgttttcatg gtgaaaatgt actgagattt tggatttaca ctgtatttgt atctctgaag
 961 catgtttcat gttttgtgac tatatagaga tgtttttaa agtttcaatg tgattctaata
 1021 gtcttcattt cattgtatga tgtgttgta tagctaacat tttaaataaa agaaaaaata
 1081 tcttgaaaaa aaaaaaaaaa aa

(2) INFORMATION FOR SEQ ID NO:2632:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1674 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2632

1 gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga
 61 caggactctg ctgcagaggg gggttgtga cagatagtag ggctttaccg cctagcttgc
 121 aaatggataa cgtcctcccgt gtgactcag acctctcccc aaacatctcc actaacacct
 181 cggaaaccaa tcagttcgtg caaccagcct ggcaaattgt cttttgggca gctgcctaca
 241 cggtcattgt ggtgacctct gtggtgggca acgtggtagt gatgtggatc atcttagccc
 301 acaaaagaat gaggacagt acgaactatt tcttggtgaa cctggccttc gcggaggcct
 361 ccattggctgc attcaataca gtggtgaact tcacctatgc tgtccacaac gaatggtagt
 421 acggcctgtt ctactgcaag ttccacaact tcttccccat cgccgctgtc ttcgccagta
 481 tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat cccctccagc
 541 cccggctgtc agccacagcc accaaagtgg tcactctgtt catctgggtc ctggtctctc
 601 tgctggcctt cccccagggc tactactcaa ccacagagac catgccagc agagtctgtg
 661 gcattgatga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg
 721 tgactgtgct gatctacttc ctccccctgc tgggtgattg ctatgcatac accgtagtgg
 781 gaatcacact atgggccagt gagatccccg gggactcttc tgaccgctac cagcagcaag
 841 tctctgccaa gcgcaaggtg gtcaaaatga tgattgtcgt ggtgtgcacc ttcgccatct
 901 gctggctgcc ctccacatc ttcttctctc tgccctacat caaccagat ctctacctga
 961 agaagtttat ccagcaggtc tacctggcca tcatgtggct ggccatgagc tccaccatgt
 1021 acaaccccat catctactgc tgcctcaatg acaggttccg tctgggcttc aagcatgcct
 1081 tccggtgtct ccccttcac agcgcggcg actatgagg gctggaaatg aaatccaccc
 1141 ggtatctcca gaccagggc agtgtgtaca aagtcagccg cctggagacc accatctcca
 1201 cagtgtgtgg gggccacgag gaggagccag aggacggccc caaggccaca cctcgtctcc
 1261 tggacctgac ctccaactgc tcttcacgaa gtgactccaa gaccatgaca gagagcttca
 1321 gcttctctc caatgtgtc tctaggcca cagggccttt ggcaggtgca gccccactg
 1381 cctttgacct gcctcccttc atgcatggaa attcccttca tctggaacca tcagaaacac
 1441 cctcacactg ggacttgcaa aaaggtcag tatgggttag gaaaaacatt ccatccttga
 1501 gtcaaaaaat ctcaattctt cctatctttt gccaccctca tgcgtgtgta ctcaaaccaa
 1561 atcatgcaac tttgctgagc ctgtaaaata aaaggtcgga ccagcttttc ccaaaagccc
 1621 attcattcca tcttggaagt gactttggct gcatgcgagt gctcatttca ggat

(2) INFORMATION FOR SEQ ID NO:2633:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1766 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2633

1 aattcagagc caccgcgggc aggcggggcag tgcattccaga agcgtttata ttctgagcgc
61 cagttcagct ttcaaaaaga gtgctgcccc taaaaagcct tccaccctcc tgtctgcttt
121 agaaggaccc tgagccccag ggcagagcca caggactctg ctgcagaggg ggggtgtgta
181 cagatagtag gctttacgcc tagcttcgaa atggataacg tcctcccggg ggactcagac
241 ctctccccaac acatctccac taacacctcg gaaccaatc agttcgtgca accagcctgg
301 caaattgtcc tttgggcagc tgcctacacg gtcattgtgg tgacctctgt ggtgggcaac
361 gtggtagtga tgtggatcat cttagccac aaaagaatga ggacagtac gaactatatt
421 ctgggtgaacc tggccttcgc ggaggcctcc atggctgcat tcaatacagt ggtgaacttc
481 acctatgctg tccacaacga atggtagtac ggcctgttct actgcaagtt ccacaacttc
541 tttcccatcg ccgctgtctt cgccagtatc tactccatga cggctgtggc ctttgatagg
601 tacatggcca tcatacatcc cctccagccc cggctgtcag ccacagccac caaagtgggc
661 atctgtgtca tctgggtcct ggctctcctg ctggccttcc cccagggtca ctactcaacc
721 acagagacca tgcccagcag agtcgtgtgc atgacgaat ggccagagca tccgaacaag
781 atttatgaga aagtgtacca catctgtgtg actgtgtgta tctacttcc cccctgctg
841 gtgattggct atgcatacac cgtagtggga atcacactat gggccagtga gatccccggg
901 gactcctctg accgctacca cgagcaagtc tctgccaagc gcaagggtgt caaaatgatg
961 attgtcgtgg tgtgcacctt cgccatctgc tggctggcct tccacatctt cttcctcctg
1021 ccctacatca acccagatct ctacctgaag aagtttatcc agcaggtcta cctggccatc
1081 atgtggctgg ccatgagctc caccatgtac aaccccatca tctactgctg cctcaatgac
1141 aggttccgctc tgggcttcaa gcatgccttc cgggtgtgccc ccttcacag cgccggcgac
1201 tatgaggggc tggaaatgaa atccaccggg tatctccaga cccaggggcag tgtgtacaaa
1261 gtcagccgccc tggagaccac catctccaca gtgggtgggg cccacgagga ggagccagag
1321 gacggccccc aggccacacc ctgctccctg gacctgacct ccaactgtc ttcacgaagt
1381 gactccaaga ccatgacaga gagcttcagc ttctcctcca atgtgtctc ctaggccaca
1441 gggcctttgg caggtgcagc ccccaactgcc tttgacctgc ctcccttcat gcatggaat
1501 tcccttcatc tggaaccatc agaaacaccc tcacactggg acttgcaaaa agggtcagta
1561 tgggttaggg aaaacattcc atccttgagt caaaaaatct caattcttcc ctatctttgc
1621 caccctcatg ctgtgtgact caaaccaaat cactgaactt tgctgagcct gtaaaataaa
1681 aggtcggacc agcttttctt caagagccca atgcattcca tttctggaag tgactttggc
1741 tgcattgcag tgctcatttc aggatg

(2) INFORMATION FOR SEQ ID NO:2634:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1268 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2634

1 gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga
61 caggactctg ctgcagaggg ggggtgtgta cagatagtag ggctttaccg cctagcttgc
121 aaatggataa cgtcctcccg gtggactcag acctcctccc aaacatctcc actaacacct
181 cggaacccaa tcagttcgtg caaccagcct ggcaaatgtt cctttgggca gctgcctaca
241 cggtcattgt ggtgacctct gtggtgggca acgtggtagt gatgtggatc atcttagccc
301 acaaaagaat gaggacagtg acgaactatt ttctggtgaa cctggccttc gcggaggcct
361 ccatggctgc attcaatata gtggtgaact tcacctatgc tgtccacaac gaatggtact
421 acggcctggt ctactgcaag ttccacaact tcttcccatc cgccgctgtc ttcgccagta
481 tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat ccctccagc
541 cccggctgtc agccacagcc accaaagtgg tcactgtgtt catctgggtc ctggtctctc
601 tgctggcctt cccccagggc tactactcaa ccacagagac catgcccagc agagtctgtt
661 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg
721 tgactgtgct gatctacttc ctccccctgc tgggtgattg ctatgcatac accgtagtgg
781 gaatcacact atggggccagt gagatccccg gggactcctc tgaccgctac cacgagcaag
841 tctctgccaa ggcgaagggt gtcaaaatga tgattgtcgt ggtgtgcacc ttcgccatct
901 gctggctgcc cttccacatc ttcttccctc tgccctacat caaccagat ctctacctga
961 agaagtttat ccagcaggtc tacctggcca tcactgtggc ggccatgagc tccaccagt
1021 acaaccccat catctactgc tgcctcaatg acagggtagg atccccaccc catgagctct
1081 ccaggggcca caagaccatc tacatacaca gtggccaagc ggcatcctaa atgagtaaac
1141 ccagctgtga gacaagaggg acaagtgggg actgcagcta acttatcatc acacaactca
1201 gcctggctga ttatcaccat ccagggaatg gagcccgagg tagactgatt ttcttttttt
1261 cttttcca

(2) INFORMATION FOR SEQ ID NO:2635:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 373 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2635

```
1 atgctgagaa aggtagctgc caaaccttga ctgcaataac aataacaaaa attaaaaacc
61 taaaataata agtatatcat actgaccttt cctgtttacc ttgctgtagg taccacatct
121 gtgtgactgt gctgatctac ttctccccc tgctgggtgat tggctatgca tacaccgtag
181 tgggaatcac actatgggcc agtgagatcc ccggggactc ctctgaccgc taccacgagc
241 aagtctctgc caagcgcaag gtgagcaggg gacaggcaga actaaccac cctggcacag
301 acaacaggct gtcgagaagg gatggcacac ttgtgagccc cagaggcagc tagcacaaaa
361 tatccccagg tat
```

(2) INFORMATION FOR SEQ ID NO:2636:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2472 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2636

```
1 ggatccaatt ttgccccgc ataagtgtat agtaaatttc ccagccttaa agcacttccc
61 gagagatgct ttgagcgctc gcggtaccag tgcgtaaacg ccgctccccg gctggcgcg
121 gtgtgcgcca actccaacct gcgcgcaagt ctgccggtgc gcgctccagt cccacagctc
181 cgagtccccg cagtgaagg agggggcggt gcaccgggt agatgggcc ctgaggactc
241 ccggggttca gttttccgcg gctgccaaaga gggccaagt ggacagtggc agggctctga
301 agcagatcag caacaaccgc aagtgtctca gccccagtc ctacagacag gaggaacacg
361 acaaggagcg gacacacaac gtcttggaac gtcagaggag gaacgagctg aagcgcagct
421 tttttgccct gcgtgaccag atccctgaat tggaaaacaa cgaaaaggcc cccaaggtag
481 tgatcctcaa aaaagccacc gcctacatcc tgtccattca agcagacgag cacaagctca
541 cctctgaaaa ggacttattg aggaacgac gagaacagtt gaaacacaaa ctccaacagc
601 ttcgaaactc tgggtcataa actgacctaa ctgaggagg agctggaatc tctcgtgaga
661 gtaaggagaa cggttccttc tgacagaact gatgcgctgg aattaaaatg catgctcaaa
721 gcctaaccctc acaaccttgg ctggggcttt gggactgtaa gcttagagac tgtcacttcc
781 caggtgaatc agctagccag gtaactgagc tagatatatt gtgggggtgt ttctaaaca
841 cagcctcagg aaagtgttt tcgggacacc tggaccaggg agtcgtcgcc tctggcttct
901 cggtagctgt agcgcggccc ggagcgcggc gctggcacat cggccccaca catgaccgtt
961 tcccattggc acaggcaagc cgctctgca gagctgtctc agggctctgy gcttcattcc
1021 ctggaagtgt attgtcctcc actccagctg ttcccaaat ccttcttcc tcccagcacc
1081 cctcgtgcaa cgacgattcc agctgcggac cgcatctgtg tcagttactt ccaagccacc
1141 tactgcccc tcgcggagtg cgtggggctc ccggctcgca gactccacg gcaagtagca
1201 agcagcaaaa ggcgtgtag ctgcggcggt ggaatgagac agttgtcaac agctggcgca
1261 cgtgccgccc tgccgaccgg gactggcgag tacgcagccc aggtactgcc ccttccagt
1321 gacgtctctg caggggttta taaaagcctc gtgcgcagct aactcgcgag ctgagcaacc
1381 cgaaccgaga ggtgcccgcg aaactgcagg cggcggcagc ggcagcaaaa gagaaggaaa
1441 aatctccagc tggatacga gctccagaat cctggccata ggctcagaac ttttacaggt
1501 cgcgtgcaa tgggccccca ctctcctcct aagtcctcac gcagcacag gctttgcctt
1561 tccctgcgga ggaaggagaa ataggagtgt caggcagcag caggtgcata aatcgggggg
1621 atctcttgct tcctagaact gtgaccgtgt gaatttctt cccttttca gttaccgca
1681 agagagatgc tgtctccaga cttctgaact caaacgtctc ctgaagcttg aaagtggagg
1741 aattcagagc caccgcgggc aggcgggcag tgcattcaga agcgtttata ttctgagcgc
1801 cagttcagct ttcaaaaaga gtgctgcca gaaaaagcct tccaccctcc tgtctggctt
1861 tagaaggacc ctgagcccca ggcgccagcc acaggactct gctgcagagg ggggttgtgt
1921 acagatagta gggctttacc gcctagcttc gaaatggata acgtcctccc ggtggactca
1981 gacctctccc caaacatctc cactaacacc tcggaacca atcagttcgt gcaaccagcc
2041 tggcaaatgt tcctttgggc agctgcctac acggctattg tggtagctc tgtggtgggc
2101 aacgtggtag tgatgtggat catcttagcc cacaagaaga tgaggacagt gacgaactat
2161 tttctggtga acctggcctt cgcggaggcc tccatggctg cattcaatac agtgggtgaac
2221 ttcacctatg ctgtccacaa cgaatggtac tacggcctgt tctactgaa gttccacaac
2281 ttcttcccc tgcgcgctgt ctctgcagat atctactcca tgacggctgt ggcctttgat
2341 aggtgagatt agcctttgtg aaaaggcgag aaagtgtctc tagaggacca tggcattgct
2401 gtgaggtttg gaactgggtg gggatgggt caagtggag attggccact ctgagggttt
2461 ttttactgat ca
```

(2) INFORMATION FOR SEQ ID NO:2637:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 594 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2637

```
1 agaatatgga aaaggaattg gaaaataatt gtacaaatca tcaggaatca aagggtttct
61 atgaattttc ttattggcag gaaaaatatg gaatctctga tacagatttt ggtgaccaga
121 tcagaacttt gttcttttct ctctgttcca ggtacatggc catcatacat cccctccagc
181 cccggtgtgc agccacagcc accaaagtgg tcattctgtgt catctgggtc ctggctctcc
241 tgctggcctt cccccagggc tactactcaa ccacagagac catgcccagc agagtcgtgt
301 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtga gtagagatga
361 ctccccatgc caaagaaacg atgggtgcagg ctgcttctct ggcccttctt tgctctttct
421 ttctttccat attcttttgt tggtagagat ttaatgtgta tctgcaagca tttctcacat
481 ataccctcat atcaggttga tatgtccaca gttgtcaggg gactatagta tcccaaatat
541 tattctgagc attgaaagat aatttttgaa gtgtaagatc tagatcctgt tata
```

(2) INFORMATION FOR SEQ ID NO:2638:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 371 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2638

```
1 gagggggatg tgctggtggt ctcacctgtc tcacctctt gccagggtgt caaaatgatg
61 attgtcgtgg tgtgcacctt cgccatctgc tggtgcctt tccacatctt cttctcctg
121 ccctacatca acccagatct ctacctgaag aagtttatcc agcagggtcta cctggccatc
181 atgtggctgg ccatgagctc caccatgtac aaccccatca tctactgctg cctcaatgac
241 aggtgaggat cccaacccca tgagctctcc agggggccaca agaccatcta catacacagt
301 ggccaagcgg catctaaatg agtaaaccba gctgtgagac aagaggggaca agtggggact
361 gcagctaact t
```

(2) INFORMATION FOR SEQ ID NO:2639:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3929 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2639

```
1 ccgtcccaaa ggtcacctct tcattctgctc gctctccagg ttccgtctg gcttcaagca
61 tgcttcccg ggtgcccct tcacagcgc cggcgactat gaggggctg aaatgaaatc
121 cacccggtat ctccagacc agggcagtg gtacaaagtc agccgcctg agaccaccat
181 ctccacagtg gtgggggccc acgaggagga gccagaggac ggccccaagg ccacaccctc
241 gtccctggac ctgacctcca actgctcttc acgaagtgc tccaagacca tgacagagag
301 ctacagcttc tctccaatg tgctctccta gcccacagg cctttggcag gtgcagcccc
361 cactgccttt gacctgctc cttcatgca tggaaattcc ctcatctg aaccatcaga
421 aacaccctca cactgggact tgcaaaaagg gtcagtatg gttagggaaa acattccatc
481 cttgagtcaa aaaatctcaa ttcttcccta tctttgccac cctcatgctg tgtgactcaa
541 accaaatcac tgaactttgc tgagcctgta aaataaaaagg tccgaccagc ttttccaaa
601 agccattca ttccattctg gaagtgactt tggtgcatg cgagtgtca tttcaggatg
661 aattctgcag cacagctgcg gaccgggaag actcatttct ctggagcccc gtgttacttc
721 aataaagtta tctcagatta gcctcctgca gctggaggct cctatcacc cagcctacgc
781 ttgacagggt gaacaaaaga aggcaccaca taacatctaa atgaaaaatt tagccctgtc
841 ttctaagcat ctgtgaaaag aaacatagt attcccttt ttggcatctc agtatttcag
901 tacatttata catcatgaga ttgagaacct cgggcttcca cattatgtcc ccggtgactg
961 tcctgagcag ccgacgcaag cagaatatgt ccaactgata ctgctagtct tcttacagac
1021 caggaattgg gagacttga ctacatttaa tgtgtagtgt accctctttt cctacttgta
1081 aacaaggagg ctgaactaga taatctaagt gttccttcca atcttaacat cccgtgggtc
1141 aaggattgta tgagtttttt gttgttttta caaaaaaaa caaaacgaag aataaaagaa
1201 tagaaaagaa taggagcagt gactcttgta actaatccc agttcctgga gatgtagcaa
1261 ctgctaaggc catctgtaac tatccatctc agacattctc cgatttatct taaaatcctg
```


1321 agtacattcc ttctcatgga aggttttggc ttttgacaga gcagaggact tcatgccaa
1381 gcctgcatcc atccagcttt agcaggcaga atttcatagc tgcagaacac tgtcagagaa
1441 gacaaatgtg ggctccctgc tttaaccttt tgggtatttt aggggtgggg ccctaacctt
1501 cattcttagt tttaactag catcgtgctc atatgtgcga caagcaagaa ggctgcactt
1561 tgcagctgca cttctgggaa gagggcatct tgcattctcc cttcagactc tctgaatgtc
1621 tectccctgc tccatggcct tgcagcttc ctgtctctaa ggggtagaat gactcatcaa
1681 ccctaaagga cagtcagtct tccaagagcc atgaactgaa tgctttatat cctaatttag
1741 atttagagtt tccagaaggt gagcatgcag ttttgttttg ttttttttc tgtctccaa
1801 atctgtgttt tttccagata tggctggaag cagaagcttc atgtaacatc catgaatgtc
1861 ctctggttag tttgcataat ggatgcacat gtgcgcgcatc cataacatta aggggagaat
1921 aatgcatggt ttacagcctt tgcagccct gctggcteta attctaccag ggcatccaca
1981 ggctggggg aagaagaaac agtataagcc agaaaacctc aagaactaca tctctaaaag
2041 cagcatggaa agttttaaat aaactaagtg aagccagatc attgcagata tataaatgga
2101 agacaaaatt tagaagcaac aaaagttagt gccctaagca ttagtcatac ttccaataga
2161 gaatcttgct gtgtatggat tactcacttt ggaagaatgt aaagagctaa catgattatg
2221 agaagtacct gagaagatgg tgtcaagaag ttggggacac ccatctatg gaagagaagg
2281 ttagagttga gctcaacgag gattaactga gtgcctcctc tggactttgc cctgaactgg
2341 gaacacacag cccctgcagc tctgaagag cctaccttat tggccatcac taactaactc
2401 accagtccta gtgagtctaa gctgccagc agtcttgag gcacttgaga ggacagattc
2461 tccacagaat tctaaaaacc cactcaac atgggcagtc aagcaaagac tgggaccttt
2521 ggagagctc tggaaatgaga gttctctggg gtacttccaa agggagctgg cagtcagctc
2581 aggggacctt aaggaatttg gttgaacagt atcatctctg tgcatagtaa gagggaaatg
2641 tgggtggtcc gggcagtttc caatatggca aagcatctgc ttggacagt ccagcaagcc
2701 ttcctctgac ccagtctcca atgtccacta acttataaaa atgtcatcaa ctcccacatg
2761 tgagaaacac catgatattg actgtgcag ggtcacatc ttattctaga aatgcatcac
2821 cctgtgttta tccaagtgtg tttacttggg gtaatgtcca gtagtaatag aatatgaaat
2881 atcaaggaac catctttgtt acgtgacttc caaaatgtga gatctcattg ctgtcactgt
2941 gatatttgta ttgtgtgaat ctcttctctc tcttctctct catgctttct caggaggagg
3001 cctgatgta tatcatgaac tcacagttcc tagaccacag taattgaggg gcggtggggg
3061 ggcttttatc ggagaagcta gagaacaaga gtccttctcc tcttatccc ccaacaggac
3121 actaagagac aaggactgag tggaaatctg gagaagggg actcaggaac tgacctcatt
3181 ggctgatttt gtgaggagag gagtataagt ggagaggggc cattcctgag gtttccgtgt
3241 tttccagcct ggtctcctgg aaagaatctt tatacagaaa taaagtatgt gtttactct
3301 ctctgctctc tgtctcttct ctagggttcc taaacatcct ataggatgct aatgggatg
3361 gtactagaaa cctaataaac ttgcatagct agaaggatgg aatcaatgtt cagtaaaact
3421 ttgactctgt gatgaaatgg gttgggaaga tgtgggaaca gttcccaggt tgagatctgg
3481 gaagggaggt gggattatgc gaaatcacag tgatgttgcc tatgaataaa gctgtgtcag
3541 gatgcagaca caacagagtt ataagcaciaa gggagttttc gtaggacagg aggttggggg
3601 gaataacatc tgagaagac aaaggggaaa gaaagcagaa gtactcaggg acagccttca
3661 gaccaccatg ccaatctgac acctgggaaa aaaggggtgg ttaggaagag cctcagactg
3721 tgggtgcagc cccagcccaa cagtgcaaa gattgccag agagacattg cacgttaaca
3781 gaatggccag gectgatgcc ctgcccgtgt cagccgctgt ctggggctct ctagggaaag
3841 tgttctgtgt ttgaacacca tgggtgatgc tgaagccctg cagctggagg ctgtcagcca
3901 agtgcctctg agttcttctt aaagaggga

(2) INFORMATION FOR SEQ ID NO:2640:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12447 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2640

1 gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga
61 caggactctg ctgcagaggg ggttgtgta cagatagtag ggctttaccg cctagcttgc
121 aaatggataa cgtcctcccg gtggactcag acctctcccc aaacatctcc actaacacct
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(2) INFORMATION FOR SEQ ID NO:2641:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5441 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2641

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4921 agaccccgaa ggaagcaag acggccctc aggacagggc tgccgggtga aggaagggtg
4981 gacagcagg gccggtcact ggtggaggg ggagggcagg ctccagcccc agagcttccc
5041 aaattagatc taagatccct ggaagctca gtgaagctca gcgcagtgc actggcagat
5101 gtgagcgtca gctcagcag gaagggtctc tcaggacgtg acaggcaggc tgctggccag
5161 ggctgcagcc acctgcgttt tgactgggac gggggcacct gatccaaggt caccacagtg
5221 gctgccgga ggaggccctg gttccccgtc acaagggggt gtgaggggga aggccaagtg
5281 gtggccacan ggttncacc gagagggaca gtgccaagt tggccaagcc accctnggac
5341 aagaacaat nccaagtctt nccaaggtcc ttggacaaca aggagaancc cccccagctt
5401 ggggcnatt aaccaagggc cangncccc cttcccggtt c

(2) INFORMATION FOR SEQ ID NO:2642:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 388 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2642

1 tggaccacc cgggtcccc cgtcccagct tccattcttc accccacaat ctgtagcccc

61 cagccctgcc ctgtgaggcc cggccaggcc caccgatgctc ctcccttgctc cccagatgct
 121 gaatctgctg ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcgg cccctggtga
 181 gtcccagccg gggccacccc tgcccctcac cacattccac aggtcagggc ctgggtgggt
 241 tctggggagg cgggctggc cccacacag ggaaggctg ggcacaggcc tgggctgct
 301 tccctggcct gacctggcac ctgcccagc cccaggccag gcctgcagc gagtgggcat
 361 cgttgggggt caggaggccc ccaggagg

(2) INFORMATION FOR SEQ ID NO:2643:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1167 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2643

1 cagatcggag cggacatcgc cctgctggag ctggaggagc cggatgaaggc ctccagccac
 61 gtccacacgg tcaccctgcc cctgcctca gagaccttcc ccccggggat gccgtgctgg
 121 gtactggct gggcgatgt ggacaatgat ggtgggtctg gggacagtgg aggtggggcc
 181 aggtctcttag ccacagccca gccctgaggc tccctctggg ctccagggtg ggggtgccc
 241 gcccctctct gaggtgcac cctcttcccc acctgcagag cgctccac cgccatttcc
 301 tctgaagcag gtgaaggctc ccataatgga aaaccacatt tgtgacgcaa aataccacct
 361 tggcgccctac acgggagacg acgtccgcat cgtccgtgac gacatgctgt gtgccgggaa
 421 caccggagg gactcatgcc aggtggggcc cgcgtgtccc ccgccccccg caccccaacc
 481 cccactccca ggctgttctg gcgagcgctg acctctgacc ttccaggggc gactccggag
 541 ggcccttggt gtgcaagggt aatggcacct ggctgcaggc gggcgtggct agctggggcg
 601 agggctgtgc ccagcccaac cggcctggca tctacacccg tgtcacctac tacttgact
 661 ggatccacca ctatgtcccc aaaaagccgt gactcaggcc tgggttggcc acctgggtca
 721 ctgaggagac aaccctgct gtccaaaaca ccactgcttc ctaccagggt ggcgactgcc
 781 cccacacct tccctgcccc gtctgagtg ccccttctg tccaaagccc cctgctctct
 841 tctgagcccc tccccctgtc ctgaggaccc tcccccatcc tgagccccct tccctgtcct
 901 aagcctgacg cctgcactgg gccctccggc cctccccctg ccaggcagct ggtggtgggc
 961 gctaactctc ctgagtgtg gacctcatta aagtgcagtg aaatcactgg tgtgcatcgc
 1021 tgtgtttctg gttgtggatg tctactggag agaaggggtc caggtgtgct gaggacacct
 1081 gccacagtgt gaggtcctag ccctcaaggc acaagccagt caccgtggga cggggcctct
 1141 gggcagccct ggtccccgag ctggcctt

(2) INFORMATION FOR SEQ ID NO:2644:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1143 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2644

1 ccaggatgct gaatctgctg ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcgg
 61 cccctgcccc aggcaggcc ctgcagcgag tgggcatcgt tgggggtcag gagccccca
 121 ggagcaagtg gccctggcag gtgagcctga gagtccacgg cccatactgg atgcatttct
 181 gcgggggctc cctcatccac cccagtgagg tctgaccgc agcgcactgc gtgggacccg
 241 acgtcaagga tctggccgcc ctcagggtgc aactgcggga gcagcacctc tactaccagg
 301 accagctgct gccggtcagc aggatcatcg tgcacccaca gttctacacc gccagatcg
 361 gaggcgacat cgccctgctg gagctggagg agccggtgaa ggtctccagc cactccaca
 421 cggtaaccct gcccctgcc tcagagacct tccccccggg gatgccgtgc tgggtcactg
 481 gctggggcga tgtggacaat gatgagcgcc tcccaccgcc atttctctg aagcagggtga
 541 aggtcccat aatggaaaac cacatttctg acgcaaaata ccacctggc gcctacacgg
 601 gagacgacgt ccgcatcgtc cgtgacgaca tgcgtgtgct cgggaacacc cggagggact
 661 catgccaggc cgactccgga gggcccctgg tgtgcaagg gaatggcacc tggctgcagg
 721 cgggcgtggt cagctggggc gagggctgtg cccagcccaa ccggcctggc atctacacc
 781 gtgtcaccta ctactggac tggatccacc actatgtccc caaaaagccg tgagtcaggc
 841 ctgggtgtgtc cacctgggtc actggaggac caaccctgc tgtccaaaac accactgctt
 901 cctaccagg tggcgactgc ccccacacc ttccctgccc cgtcctgagt gcccttctct
 961 gtctaagcc cctgctctc ttctgagccc cttccctgt cctgaggacc cttcccatc
 1021 ctgagccccc ttccctgtcc taagcctgac gcctgcactg ctccggccct cccctgcccc
 1081 ggcagctggt ggtggcgct aatcctctg agtgcaggac ctcatataag tgcattgaaa
 1141 tca

(2) INFORMATION FOR SEQ ID NO:2645:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1145 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2645

```
1 ggccaggatg ctgaatctgc tgctgctggc gctgcccgtc ctggcgagcc ggcctacgc
61 ggccccctgcc ccaggccagg cctgcagcg agtgggcatc gttgggggtc aggaggcccc
121 caggagcaag tggccctggc aggtgagcct gagagtcac gccccatact ggatgcactt
181 ctgcgggggc tccctcatcc acccccagtg ggtgctgacc gcagcgact gcgtgggacc
241 ggacgtcaag gatctggccg cctcagggt gcaactgcgg gagcagcacc tctactacca
301 ggaccagctg ctgccggtca gcaggatcat cgtgcaccca cagtcttaca cggcccagat
361 cggagcggac atgcgccctg tggagctgga ggagccggtg aaggtctcca gccacgtcca
421 cacggtcacc ctgccccctg cctcagagac cttccccccg ggagtgccgt gctgggtcac
481 tggctggggc gatgtggaca atgatgagcg cctccaccgc ccatttcttc tgaagcaggt
541 gaaggtcccc ataatggaaa accacatttg tgacgcaaaa taccaccttg gcgcctacac
601 gggagacgac gtccgcacgc tccgtgacga catgctgtgt gccgggaaca cccggaggga
661 ctcatgccag ggcgactccg gagggcccct ggtgtgcaag gtgaatggca cctggtgca
721 ggcggggcgtg gtcagctggg gcgagggctg tgcccagccc aaccggcctg gcatctacac
781 ccgtgtcacc tactacttgg actggatcca ccactatgtc ccaaaaaagc cgtgagtcag
841 gcctgggttg gccacctggg tctactggag accaaccctt gctgtccaaa acaccactgc
901 ttctacacca ggtggcgact gccccccaca ccttccctgc ccgtcctga gtgccccttc
961 ctgtcctaag cccctgtctc tcttctgagc ccttcccctt gtcttgagga ccttcccca
1021 tcctgagccc ccttccctgt cctaagcctg acgctgcac cgggccctcc ggcctcccc
1081 tgcccaggca gctggtggtg ggcgctaata ctctgagtg ctggacctca ttaaagtga
1141 tggaa
```

(2) INFORMATION FOR SEQ ID NO:2646:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1137 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2646

```
1 tgaatctgct gctgctggcg ctgcccgtcc tggcgagccg cgcctacgcg gcccctgccc
61 caggccaggc cctgcagcga gtgggcatcg tcgggggtca ggaggcccc aggagcaagt
121 ggccctggca ggtgagcctg agagtccacg gcccatactg gatgcacttc tgcgggggct
181 ccctcatcca ccccagtggt gtgtgaccg cagcgactg cgtgggaccg gacgtcaagg
241 atctggccgc cctcagggtg caactgcggg agcagcacct ctactaccag gaccagctgc
301 tgccgggtcag caggatcatc gtgcacccac agttctacac cggccagatc ggagcggaca
361 tcgcccctgct ggagctggag gagccggtga acgtctccag ccacgtccac acggtcacc
421 tgccccctgc ctcagagacc tcccccccg ggatgccgtg ctgggtcact ggctggggcg
481 atgtggacaa tgatgagcgc ctcccaccgc catttctct gaagcaggtg aaggtcccca
541 taatggaaaa ccacatttgt gacgcaaaat accaccttgg gcctacacg ggagacgacg
601 tcgcacatcg ccgtgacgac atgctgtgtg ccgggaacac ccggagggac tcatgccagg
661 gcgactccgg agggcccctg gtgtgcaagg tgaatggcac ctggctgcag gcggggcgtg
721 tcagctgggg cgagggtgtg gccagccca accggcctg catctacacc cgtgtcacct
781 actacttga ctggatccac cactatgtcc caaaaaagcc gtgagtcagg cctgggttgg
841 ccacctgggt cactggagga ccaaccctg ctgtccaaaa caccactgct tctaccag
901 gtggcgactg cccccacac cttccctgcc ccgtctgag tgccccttc tgtcctaagc
961 cccctgctct cttctgagcc ccttcccctg tctgaggac ccttccctat cctgagcccc
1021 cttccctgtc ctaagcctga cgcctgcacc gggccctcca gccctcccct gccagatag
1081 ctggtggtg gcgctaatac tctgagtgct tggacctcat taaagtgcac gaaatc
```

(2) INFORMATION FOR SEQ ID NO:2647:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2197 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2647

```
1 accagctgac aggtggagct gccagtctcc agtgcacgc cctcagcggg gctgctggtg
```


61 cagccccaca cacagagggc atcgggggtg cgggggcacg tgttacacg gggccctggg
 121 tctgagtcac ccacttcctc cgagtctgga tgggaggacc cagcgccctt cctccgcccc
 181 ctctctgactt ggaaggataa atggggaggg gagagccact gggtagaagg aacagggagt
 241 ggccagggta agtccccact ctcagagacc ctgacatcag cgtcacctgg agcagagtgg
 301 cccagcctca gactcagagc accaagaccc aggcccgag gcctggaccc accccggtcc
 361 ccccgtecca gctccattct tcaccccaca atctgtagcc cccagccctg cctgtgtagg
 421 cccggccagg cccacgatgc tctccttgc tccccagatg ctgaatctgc tgcgtgtggc
 481 gctgcccgtc ctggcgagcc gcgcctacgc ggcctctggt ggtgccacg cgggggtcac
 541 cctgccccctc accacatttc acaggtcagg gcctgggtgg gttctgggga ggtcgggctg
 601 gccccccaca cagggaaggg ctgggcccag gcctggggct gcttctctgt cctgacctgg
 661 cacctgcccc agccccaggc caggccctgc agcagatggg catcgctggg ggtcaggagg
 721 cccccaggag caagtggccc tggcagggtg gcctgagagt ccacggccca tactggatgc
 781 acttctgcgg gggctccctc atccaccccc agtgggtgct gaccgcagcg cactgctggg
 841 gaccgtgagt ctcccggggc ctggagggtt ggggaagggc tggatgtgag cctctggctcc
 901 cgggtgctcc tgggggctgc ccagggccct gagggtggac ctccgctgcc cagggacgtc
 961 aaggatctgg ccgcccctag ggtgcaactg cgggagcagc acctctacta ccaggaccag
 1021 ctgctgcccg tcagcaggat catcgctgac ccacagttct acaccgcccc gatcggagcg
 1081 gacatcgccc tgctggagct ggaggagccg gtgaacgtct ccagccacgt ccacacggtc
 1141 accctgcccc ctgcccctaga gaccttcccc ccggggatgc cgtgctgggt cactggctgg
 1201 ggcgatgtgg acaatgatgg tgggtctggg gacagtggag gtggggccag ggtcttagcc
 1261 acagcccagc ccttgggtcc ctctgggtcc cagggtggggg ttgcccggcc cctctctgag
 1321 gctgcacctc cttcccacc tgcagagcgc ctcccaccgc catttctctt gaagcaggtg
 1381 aagggtgaat ggacactggc tgcaggcggt cgtggtcagc tggggcgagg gctgtgcccc
 1441 ggagacgacg tccgcacgtt ccgtgacgac atgctgtgtg ccgggaacac ccggaggggc
 1501 tcatgccagg tgggccccgc ctgtcccccg ccccccgccc cccaaccccc actccccagg
 1561 ctgttcggcg agcgtgacc tctgaccttc ccaggggcag tccggagggg cctctgtgtg
 1621 caagggtgaat ggcacctggc tgcaggcggt cgtggtcagc tggggcgagg gctgtgcccc
 1681 gcccacccgg cctggcatct acaccctgtt cactacttac ttggactgga tccaccacta
 1741 tgtcccaaaa aagccgtgag tcaggccctg gttggccacc tgggtcactg gaggaccaac
 1801 cctctgtgtc caaaacacca ctgcttccca ccagggtggc gactgcccc cacccttcc
 1861 ctgccccgtc ctgagtgccc cttcctgtcc taagccccct gctctcttct gaggcccttc
 1921 cctgttctct aggaccttc cctatctga gcccccttc ctgtcctaag cctgacgctt
 1981 gcaccggggc ctccagcctt cccctgcccc gatagctggt ggtgggcgtt aatcctctct
 2041 agtgctggac ctcatataag tgcattgaaa tcaactggtg gcatcgctgt gtttctggtt
 2101 gtggatgtca ctgggagaga aggggtccag gtgtgctgag gacacctgcc acagtgtgag
 2161 gtccctagccc tcaaggcaca gccagtcacc gtgggac

(2) INFORMATION FOR SEQ ID NO:2648:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1154 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2648

1 ggaattccgt ggccaggatg ctgagcctgc tgcgtgtggc gctgcccgtc ctggcgagcc
 61 gcgcctacgc ggcctctgcc ccagtccagg cctgcagca agcgggtatc gtcgggggtc
 121 aggaggcccc caggagcaag tggccctggc aggtgagcct gagagtcgcg gaccgatact
 181 ggatgcactt ctgccccggc tccctcatcc acccccagtg ggtgctgacc gcggcgcaact
 241 gcctggggacc ggacgtcaag gatctggcca cctcagggtt gcaactgcgg gagcagcacc
 301 tctactacca ggaccagctg ctgccagtca gcaggatcat cgtgcaccca cagttctaca
 361 tcatccagac tggagcggat atcgccctgc tggagctgga ggagccctg aacatctcca
 421 gccgcgtcca cacggtcatg ctgccccctg cctcggagac cttccccccg gggatgccgt
 481 gctgggtcac tggctggggc gatgtggaca atgatgagcc cctcccaccg ccatttcccc
 541 tgaagcaggt gaaggtcccc ataattgaaa accacatttg tgacgcaaaa taccaccttg
 601 gcgcctacac gggagacgac gtccgcatca tccgtgacga catgctgtgt gccgggaaca
 661 gccagaggga ctctgcaag ggcgactctg gaggggccct ggtgtgcaag gtgaatggca
 721 cctggctaca ggcgggctgt gtcagctggg acgagggtct tgcccagccc aaccggcctg
 781 gcatctacac ccgtgtcacc tactacttgg actggatcca ccactatgtc cccaaaaagc
 841 cgtgagtcag gcctgggtgt gccacctggg tcaactggag accaaccctt gctgtccaaa
 901 acaccactgc ttctaccca ggtggcgact gccccccaca ccttccctgc cccgtcctga
 961 gtgccccctc ctgtcctaag cccctgctc tcttctgagc cccttccctt gtccctgagg
 1021 cccttcccca tctgagccc ccttccctgt cctaagcctg acgctgcac tgcctcggcc

1081 ctccccctgcc caggcagctg gtggtgggcg ctaatcctcc tgagtgtggtg acctcattaa
1141 agtgcattgga aatc

(2) INFORMATION FOR SEQ ID NO:2649:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1081 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2649

```

1 gctgcccgtc ctggcgagcc gcgcctacgc ggcccctgcc ccaggccagg cccctgcagcg
61 agtgggcatc gttgggggtc aggaggcccc caggagcaag tggccctggc aggtgagcct
121 gagagtccgc gaccgatact ggatgcactt ctgcgggggc tccctcatcc acccccagtg
181 ggtgctgacc gcagcgcact gcgtgggacc ggacgtcaag gatctggccg cctcagggtg
241 gcaactgcgg gagcagcacc tctactacca ggaccagctg ctgccggta gaggatcat
301 cgtgcaccca cagttctaca ccgcccagat cggagcggac atcgccctgc tggagctgga
361 ggagccgggtg aaggtctcca gccacgtcca cacggtcacc ctgcccctg cctcagagac
421 cttccccccg gggatgccgt gctgggtcac tggctggggc gatgtggaca atgatgagcg
481 cctccccacc ccatttcttc tgaagcaggt gaaggtcccc ataatggaaa accacatttg
541 tgacgcaaaa taccaccttg gcgcctacac gggagacgac gtccgcctcg tccgtgacga
601 catgctgtgt gccgggaaca cccggaggga ctcatgccag ggcgactccg gaggggccct
661 ggtgtgcaag gtgaatggca cctggctgca ggcgggctg gtcagctggg gcgagggtg
721 tgcccagccc aaccggcctg gcattctacac ccgtgtcacc tactacttgg actggatcca
781 ccactatgtc ccaaaaaagc cgtgagtcag gcctgggggtg tccacctggg tcaactggagg
841 accagccccc cctgtccaaa acaccactgc ttctaccaca ggcggcgact gccccccaca
901 ccttccctgc cccgtctga gtgccccttc ctgtcctaag cccctgtctc tcttctgagc
961 ccttccccc cctgtgagga ccttcccca tccgtagccc ccttccctgt cctaagcctg
1021 acgcctgcac cgggccctcc ggccctcccc tgcccaggca gctggtggtg ggcgctaacc
1081 c

```

(2) INFORMATION FOR SEQ ID NO:2650:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2280 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2650

```

1 atctggaagc ataaatgggg aggggagagc ccactgggta gaaggaacag ggagcggcca
61 gggttaagtcc ccactctcag agaccctgac atcagcgtca cctggagcag agtggcccag
121 cttcagactc agagcaccaa gaccaggcc tgcaggcctg gaccacccc ggtccccccg
181 tcccagctcc attcttcacc ccacaatctg tagccccag ccctgcctg tgaggcccg
241 ccaggccccc gatgctctc cttgtcccc agatgctgaa tctgctgctg ctggcgctgc
301 ccgtctctgg gagccgcgcc tacgcggccc ctggtgagtc ccagccgggg tccacctgc
361 cctcaccac attccacagg tcagggcctg ggtgggttct ggggaggtcg ggctggcccc
421 cacacaggga agggctgggc ccaggcctgg ggtgcttcc tggctctgac ctggcacctg
481 cccagcccc aggcaggcc ctgcagcgag tgggcatcgt tgggggtcag gaggcccca
541 ggagcaagtg gccctggcag gtgagcctga gagtccgca ccgatactg atgcattct
601 gcgggggctc cctcatccac ccccagtggg tgcagaccgc agcgactgc gtgggaccgt
661 gagtctcccc gggcctggag ggtgggggaa ggcctggatg tgagccctg ctcgggggtg
721 ctctctgggg ctgcccaggg cctgagtggt gatcctccgc tgcccaggga cgtcaaggat
781 ctggccgccc tcagggtgca actgcgggag cagcacctct actaccagga ccagctgctg
841 ccggtcagca ggatcctcgt gcacccacag ttctacaccg ccagatcgg agcggacatc
901 gccctgctgg agctggagga gccggtgaac gtctccagcc acgtccacac ggtcacctg
961 cccctgcct cagagacct ccccccggg atgccgtgct gggtcactgg ctggggcgat
1021 gtggacaatg atggtgggtc tggggacagt ggaggtgggg ccagggtctt agccacagcc
1081 cagccccctg gctcctctg ggtccaggt gggggttgcc cgccccctc ctgaggctgc
1141 accctcttcc ccacctgcag agcgccctcc accgccattt cctctgaagc aggtgaagg
1201 ccccataatg gaaaaccaca ttgtgacgc aaaataccac cttggcgctt acacgggaga
1261 cgacgtccgc atcgtccgtg acgacatgct gtgtgcggg aacacccgga gggactcatg
1321 ccaggtgggc cccgctgtc ccccgcccc cgcccccaa cccccactcc caggcctgtt
1381 cggcgagcgc tgacctctga ccttccagg gcgactccg agggccctg gtgtgcaagg
1441 tgaatggcac ctggtgagc gcgggctggt tcagctgggg cgagggtgt gccagccca
1501 accggcctg catctacac cgtgtcacct actacttgg ctgatccac cactatgtcc

```

1561 ccaaaaagcc gtgagtcagg cctgggggtgt ccacctgggt cactggagag ccagcccctc
 1621 ctgtccaaaa caccactgct tectacccag gtggcgactg cccccacac cttccctgcc
 1681 ccgtcctgag tgcccttcc tgtcctaage ccctgctct cttctgagcc cttccctg
 1741 tcctgaggac ccttcccat cctgagcccc cttccctgtc ctaagcctga cgctgcacc
 1801 gggccctccg gccctccct gccagggcag ctgggtgtgg gcgctaacc tcctgagtgc
 1861 tggacctcat taaagtgcag ggaatcact ggtgtgcatc gctgtgtttc tgggtgtgga
 1921 tgtcactggg agagaagggg tccaggtgtg ctgaggacac ctggcacagt gtgaggtcct
 1981 agccctcaag gcacagccag tcaccgtggg acggggcctc ctgggcagcc ctggtccccc
 2041 aggtgtgctt ctccccacac gatgcatcca gcattcgggt cacacagagc cactcgggca
 2101 actcagttga ttataaagga cagccaggtc cctgcaaccg ggtcaagaca gaaatggtca
 2161 ccgggaaccc cagggctgcc catcacgagc ccctacccca cgcttccccc gagctcttct
 2221 cccggccctc ccgtccatgc ttgtgctttg cctaattgtt tgcttttgag aacgggattg

(2) INFORMATION FOR SEQ ID NO:2651:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17133 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2651

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(2) INFORMATION FOR SEQ ID NO:2652:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1324 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2652

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(2) INFORMATION FOR SEQ ID NO:2653:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16310 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2653

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(2) INFORMATION FOR SEQ ID NO:2654:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17634 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2654

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(2) INFORMATION FOR SEQ ID NO:2655:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2396 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2655

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1441  ggattccata  cacttgcat  taagtatgca  aaaaaattcc  aattatccag  caatttaacc
1501  aaattattgg  taacttttct  aaaacaaaaa  aaaattgttt  cccttgtttt  ggcagcaatt
1561  tcagttacag  tcctttactt  tctactcaag  aaaatagttt  caaaaagttg  atgtttgttg
1621  ctaaaagaac  tatttttatg  aataaatata  aaactaagaa  gttatgggtg  ccctttttta
1681  aaaaatgact  catcaaaaga  aataactttt  tcctttctct  tgtaagagaa  aaaaattaat
1741  ctcttttaga  attgcaaaac  tatttccttg  atggagaaaa  tcaattcaca  tggcatagtc
1801  gttatttatc  cagttcaaaa  accagagtag  aatttactac  tctgtctcca  tttttctct
1861  cccacccccc  ttaaccaca  ttggattcag  aaagcttcac  tctgcaatca  gcattgtcct
1921  ttatctttcc  agtaaagata  gccttttggg  gtcgaagatg  aggaaaagcc  tgtattttat
1981  agtcttggaa  gtgtcttctt  ttgccaggac  agagagagga  gcttcagcag  tgagagcaac
2041  tgaagggtt  aatagtggaa  cttggctggg  tgtctgttaa  acttttttcc  ctggctctgc
2101  cctgggttcc  cccttgagg  gatttccctc  cgcctctgca  acaagaccct  ttataaagca
2161  cagactttct  attcactcc  gcgtatctg  catcggtcct  cactggcttc  aggagctgaa
2221  taccctccca  ggcacacaca  ggtgggacac  aaataagggt  tttggaacca  ctattttctc
2281  atcacgacag  caacttaaaa  tgctgggaa  gatggctctg  atccttgagg  cctcaaatat
2341  actttggata  atgtttgcag  cttgtaagtt  atttcccttc  atctgtttca  aatgtt

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(2) INFORMATION FOR SEQ ID NO:2656:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2220 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2656

```

1  atgcctggga  agatggctgt  gatccttggg  gcctcaaata  tactttggat  aatgtttgca
61  gcttctcaag  cttttaaaat  cgagaccacc  ccagaatcta  gatattctgc  tcagattggg
121  gactccgtct  cattgacttg  cagcaccaca  ggctgtgagt  cccattttt  ctcttggaga
181  acccagatag  atagtccact  gaatgggaag  gtgacgaatg  aggggaccac  atctacgtg
241  acaatgaatc  ctgttagttt  tgggaacgaa  cactcttacc  tgtcacagc  aacttctgaa
301  tctaggaaat  tggaaaaagg  aatccagggt  gagatctact  cttttcctaa  ggatccagag
361  attcatttga  gtggccctct  ggaggctggg  aagccgatca  cagtcaagtg  ttcagttgct
421  gatgtatacc  catttgacag  gctggagata  gacttactga  aaggagatca  tctcatgaag
481  agtcagggaat  ttctggagga  tgcagacagg  aagtcctctg  aaaccaagag  tttggaagta
541  acctttactc  ctgtcattga  ggatattgga  aaagttcttg  tttgccgagc  taaattacac

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601 attgatgaaa tggattctgt gccacagta aggcaggctg taaaagaatt gcaagtctac
661 atatcaccca agaatacagt tatttctgtg aatccatcca caaagctgca agaagggtggc
721 tctgtgacca tgacctgttc cagcgagggt ctaccagctc cagagatttt ctggagtaag
781 aaattagata atgggaatct acagcacctt totggaaatg caactctcac cttaattgct
841 atgaggatgg aagattcttg aatttatgtg tgtgaaggag ttaatttgat tgggaaaaac
901 agaaaagagg tggaaattaat tgttcaagag aaaccattta ctgttgagat cccccctgga
961 ccccgatttg ctgctcagat tggagactca gtcattgtga catgtagtgt catgggctgt
1021 gaatccccat ttttctctg gagaacccag atagacagcc ctctgagcgg gaagggtgagg
1081 agtgagggga ccaattccac gctgacctg agccctgtga gttttgagaa cgaacactct
1141 tatctgtgca cagtgcactg tggacataag aaactggaaa agggaatcca ggtggagctc
1201 tactcattcc ctgagatcc agaaatcgag atgagtgggt gcctcgtgaa tgggagctct
1261 gtcactgtaa gctgcaaggt tcctagcgtg taccoccttg accggctgga gattgaatta
1321 cttaaggggg agactattct ggagaatata gaggtttttg aggatacggg tatgaaatct
1381 ctagagaaca aaagtgttga aatgaccttc atccctacca ttgaagatac tggaaaagct
1441 cttgtttgtc aggctaagtt acatattgat gacatggaat tcgaacccaa acaaaggcag
1501 agtacgcaa cactttatgt caatgttgcc cccagagata caaccgtctt ggtcagccct
1561 tcctccatcc tggaggaagg cagttctgtg aatatgacat gcttgagcca gggcttctct
1621 gctccgaaaa tctgtggag caggcagctc cctaacgggg agctacagcc tctttctgag
1681 aatgcaactc tcaccttaat ttctacaaaa atggaagatt ctggggttta tttatgtgaa
1741 ggaattaacc aggctggaag aagcagaaaag gaagtggaat taattatcca agttactcca
1801 aaagacataa aacttacagc ttttcttct gagagtgtca aagaaggaga cactgtcatc
1861 atctcttgta catgtggaaa tgttccagaa acatggataa tcctgaagaa aaaagcggag
1921 acaggagaca cagtactaaa atctatagat ggccgctata ccacccgaaa ggcccagttg
1981 aaggatgcgg gagtatatga atgtgaatct aaaaacaaag ttggctcaca attaggaagt
2041 ttaacacttg atgttcaagg aagagaaaaac aacaaagact atttttctcc tgagcttctc
2101 gtgctctatt ttgcactctc cttaataata cctgccattg gaatgataat ttactttgca
2161 agaaaagcca acatgaaggg gtcataatag ctgtagaag cacagaaatc aaaagtgtag

(2) INFORMATION FOR SEQ ID NO:2657:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4616 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2657

1 aattcgataa ttcaaaatga tatttcagtg gggacaaggc caaaccatat tatgtgcttt
61 atgctactaa taaaaagggt aaaccgaaca agttcaaaga caaaactcag tagtacttta
121 ttcagacagg ttagtctaaa tctgttaacc ttataacttg aactctgac attcattaat
181 tctgcaaatt ttaataaatg ctttatttta agctaaatgc tgagatgaaa aaatgaaacc
241 atatgagtta gcaaagtaga aaatataggc atattaatca gtaaatgcag aatgataat
301 gctccatcaa tatgcacttg ttgtagttag gccaccgagg aggggtgcaat cctctcaacc
361 tgggaggagc aggtaggact tcagatgtca tccaactcaa agatatagtg agggacttga
421 tcaaacattt gccaaagcca ctatgagtta aatgaataga ttaggcattt ctccaatgtt
481 gcaagcttcg aatcatatcc aaactcagaa caacatagct tggtcataat gatcccaagg
541 atcctattgg ccattgtctt tgagcctcaa aggaacatat taaaactcca taataccctt
601 ttgatctatt ctgaagttaa gtagtgaatt tacatgatga tgacacaaac actgtaaagg
661 acctctgggt tacttgttta taagctagta tttcctgaat caatttttct gatccctaga
721 tatttggtag gtgaagtcac acctatatat cccacacccc tagaacagca tctccaactt
781 ttttttccct ccttgtcttt tagtgggagc cacatcagta tccaaggagg agatccagaa
841 gcctctccaa ccaggtaggg acagttatag attccagacc tcagctatgg cctttgttac
901 agagtacaaa tgttatatag tacaagttta ttgtacacat ccatttgagt ctctgagctt
961 tagaattttc ttgtagaatt taacagtttt ttcatgccgt atttacatat tattgctagt
1021 atttagaatt ttcttctcca aatgtataac gtttattatt gcattttttg tatccactaa
1081 gtggaaaatc atgcattaga tattgtagaa gtatatacaa caatgaacaa gaactgggtc
1141 tgaccatgag aggaactgat gatccaatgg gggagataga cctgcacgtg ttaataaaaa
1201 ggaagtggct attccgggtt ctttttgatg ggcaagcatt ttgcaaggcc ttgggctatg
1261 tgtgtgcaag gctaaagccg ttagttaatt gggatttttt taaaaaggca cttcactggg
1321 gggaaaagga acatagagtt ggttattgtc ccctgccta taataaaaac ctattatttt
1381 taatttttta actgggtttg cgggttaaact tcacagccca agagatttgc cacttcagat
1441 ggattccata cacttgcatc taagtatgca aaaaaattcc aattatccag caatttaacc
1501 aaattattgg taacttttct aaaaacaaaa aaaattgttt cccttgtttt ggcagcaatt
1561 tcagttacag tcctttactt tctactcaag aaaatagttt caaaaagttg atgtttgttg

1621 ctaaaagaac tattttttatg aataaatata aaactaagaa gttatgggtgt cccctttttta
1681 aaaaatgact catcaaaaaga aataactttt tccttttctt tgtaagagaa aaaaattaat
1741 ctctttttaga attgcaaaaca tatttcccttg atggagaaaa tcaattcaca tggcatagtc
1801 gttattttatc cagttcaaaa accagagtag aattttactac tctgtctcca ttttttctct
1861 ccccccacccc ttaaccacaca ttggattcag aaagcttcat tctgcaatca gcattgtcct
1921 ttatcttttcc agtaaagata gccttttggg gtccaagatg aggaaaagcc tgtattttat
1981 agtcttggaa gtgtcttctt ttgccaggac agagagagga gcttcagcag tgagagcaac
2041 tgaaggggtt aatagtggaa cttggctggg tgtctgttaa acttttttcc ctggctctgc
2101 cctgggtttc ccttgaagg gatttccctc cgctctgca acaagaccct ttataaagca
2161 cagactttct atttactcc gcggtatctg catcgggcct cactggcttc aggagctgaa
2221 taccctccca ggcacacaca ggtgggacac aaataagggt tttggaacca ctattttctc
2281 atcacgacag caacttaaaa tgcctgggaa gatggctgtg atccttggag cctcaaatat
2341 actttggata atgtttgcag cttgtaagtt atttcccttc atctgtttca aatggt
1 atgcctggga agatggctgt gatccttggg gcctcaataa tactttggat aatgtttgca
61 gcttctcaag cttttaaaaat cgagaccacc ccagaatcta gatattcttg tcagattggt
121 gactccgtct cattgacttg cagcaccaca ggctgtgagt cccattttt ctcttggaga
181 acccagatag atagtccact gaattgggaag gtgacgaatg aggggaccac atctacgtg
241 acaatgaatc ctgttagttt tgggaacgaa cactcttacc tgtgcacagc aacttgtgaa
301 tctaggaaat tggaaaaagg aatccaggtg gagatctact cttttcctaa ggatccagag
361 attcatttga gtggccctct ggaggctggg aagccgatca cagtcaagtg ttcagtgtgt
421 gatgtatacc catttgacag gctggagata gacttactga aaggagatca tctcatgaag
481 agtcaggaat ttctggagga tgcagacagg aagtccctg tttggaagta tttggaagta
541 accttttact ctgtcattga ggatattgga aaagtcttg tttgccgagc taaattacac
601 attgatgaaa tggattctgt gcccacagta aggcaggctg taaaagaatt gcaagcttac
661 atatcaccca agaatacagt tatttctgtg aatccatcca caaagctgca agaaggtggc
721 tctgtgacca tgacctgttc cagcgagggt ctaccagctc cagagatttt ctggagtaag
781 aaattagata atgggaatct acagcacctt tctggaaatg caactctcac ctttaattgt
841 atgaggatgg aagattctgg aatttatgtg tgtgaaggag ttaatttgat tgggaaaaac
901 agaaaagagg tggaaattaat tgttcaagag aaaccattta ctgttgagat cccccctgga
961 ccccggtattg ctgctcagat tggagactca gtcattgtga catgtagtgt catgggctgt
1021 gaatccccat ctttctcctg gagaaccacg atagacagcc ctctgagcgg gaaggtgagg
1081 agtgagggga ccaattccac gctgaccctg agccctgtga gttttgagaa cgaacactct
1141 tatctgtgca cagtgaactt tggacataag aaactggaaa agggaaatcca ggtggagctc
1201 tactcattcc ctgagatcc agaaatcgag atgagtgggt gcctcgtgaa tgggagctct
1261 gtcactgtaa gctgcaagg tctagcgtg taccctctg accggctgga gattgaatta
1321 cttaaggggg agactattct ggagaatata gagtttttgg aggatacggg tatgaaatct
1381 ctagagaaca aaagtttgga aatgaccttc atccctacca ttgaagatac tggaaaagct
1441 cttgtttgtc aggctaagtt acatattgat gacatggaat tccaacccaa acaaaggcag
1501 agtacgcaaa cactttatgt caatgttgcc cccagagata caaccgtctt ggtcagccct
1561 tcctccatcc tggaggaagg cagttctgtg aatatgacat gcttgagcca gggttttct
1621 gctccgaaaa tcctgtggag caggcagctc cctaaccggg agctacagcc tctttctgag
1681 aatgcaactc tcaccttaat ttctacaaaa atggaagatt ctggggttta tttatgtgaa
1741 ggaattaaac aggtggaag aagcagaaag gaagtggaa taattatcca agttactcca
1801 aaagacataa aacttacagc ttttcttct gagagtgtca aagaaggaga cactgtcatc
1861 atctcttgta catgtggaaa tgttcagaa acatggataa tcctgaagaa aaaagcggag
1921 acaggagaca cagtactaaa atctatagat ggcgcctata ccatccgaaa ggcccagttg
1981 aaggatgcgg gagtatatga atgtgaatct aaaaaaaaag ttggctcaca attaagaagt
2041 ttaacacttg atgttcaagg aagagaaaac aacaaagact atttttctcc tgagcttctc
2101 gtgctctatt ttgcatctc ctttaataata cctgccattg gaatgataat ttactttgca
2161 agaaaagcca acatgaagg gtcatatagt cttgtagaag cacagaaatc aaaagtgtag

(2) INFORMATION FOR SEQ ID NO:2658:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6210 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2658

1 gcaggaacag tgctagtatt gctcgagccc gagggctgga ggtagggga tgaaggtctg
61 cttccacgct ttgactgaa ttagggctag aattggggat gggggtaggg gcgacttct
121 tcgggagccg aggcttaagt cctcggggtc ctgtactcga tgccgtttct cctatctctg

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181 agcctcagaa ctgtcttcag tttccgtaca agggtaaaaa ggcgtctctt gcccatccc
241 ccccgacctc gggaacaagg gtccgcattg aaccagggtg gaatgttctc tctcattctg
301 cgcggttccc gcctccccct cccagccgcg ggcccccgcc tccccccgca ctgcacctc
361 ggtgttggtc gcagcccgcg agcagttccc gtcaatccct ccccccttac acaggatgtc
421 catattagga catctgcgtc agcagggttt caccggcctt cctgtagacc ctggggggag
481 ccattccccg aacccctcat ctgggggggc ccacgagacc tctgagacag gaactgcgaa
541 atgtctcacg gattaggaca cgcgccaaag cgggggcagg gagctgcgag cgctggggac
601 gcagccgggc ggccgcagaa gcgccaggc cgcgcgcgca cccctctggc gccaccgtgg
661 ttgagcccg gacgtttaca ctcatcata aaacgcttgt tataaaagca gtggctgcg
721 cgcctcgtac tccaaccgca tctgcagcga gcaactgaga agccaagact gagccggcgg
781 ccgcgggcga gcgaacgagc agtgaccgtg ctctaccca gctctgctc acagcgcca
841 cctgtctccg cccctcgccg cctcgcccg gctttgctaa ccgccacgat gatgttctc
901 ggcttcaacg cagactacga ggcgtcatcc tcccgctgca gcagcgcgtc cccggccggg
961 gatagcctct ctactacca ctaccccgca gactccttct ccagcatggg ctgcctgtc
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1321 aactcgctaa ctagagcctg gcttcttcgg ggaggtggca gaaagcggca atccccctc
1381 ccccggcagc ctggagcacg gaggagggat gaggaggagg ggtgcagcgg gcgggtgtgt
1441 aaggcagttt cattgataaa aagcgagttc attctggaga ctccggagcg gcgctgcgt
1501 cagcgacagc gtcagggata ttataacaa acccccttcc aagcaagtga tgctgaaggg
1561 ataacgggaa cgcagcggca ggatggaaga gacaggcact gcgctgcgga atgctggga
1621 ggaaaagggg gagaccttcc atccaggatg agggacattt aagatgaaat gtccgtggca
1681 ggatcgtttc tcttactgct tgcatgcggc actgggaact cgccccacct gtgtccggaa
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1981 accatgacag gaggccgagc gcagagcatt ggcaggaggg gcaagggtgga acagggtagg
2041 aactctagcg tactcttctt gggaatgtgg gggctgggtg ggaagcagcc ccggagatgc
2101 aggagcccag tacagaggat gaagccactg atggggctgg ctgcacatcc gtaactggga
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2221 tctcatagtt tcttccctaa gtttcttacc gcatgcttcc agactgggct cttctttgtt
2281 ctcttctgta ggatcttatt ttaaagtcaa gtcacacctt ttctgcaact gcaggtcaga
2341 aatggtttca cagtggggtg ccaggaagca gggaagctgc aggagccagt tctactgggg
2401 tgggtgaatg gaggtgatgg cagacacttt tactgaatgt cggctttttt ttgtgattat
2461 tctagttatc tccagaagaa gaagagaaaa ggagaatccg aagggaaagg aataagatgg
2521 ctgcagccaa atgcccgaac cggaggaggg agctgactga taaactccaa gcggtaggta
2581 ctctgtgggt gtctcctttt taaaacttaa gggaaagtgt gagattgagc ataagggcc
2641 ttgagtaaga ctgtgtctta tgcttctctt tatccctctg tatacaggag acagaccaac
2701 tagaagatga gaagtctgct ttgcagaccg agattgccaa cctgctgaag gagaaggaaa
2761 aactagagtt catcctggca gctcaccgac ctgcttgcaa gatccctgat gacctgggct
2821 tccagaaga gatgtctgtg gcttcccttg atctgactgg gggcctgcca gaggttgcca
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3061 tggacctatc tgggtccttc tatgcagcag actgggagcc tctgcacagt ggctccctgg
3121 ggatggggcc catggccaca gagctggagc cctgtgcac tccggtggtc acctgtactc
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3361 acaagtcca ctgcccagc tgggtcatta cagagaggag aaacacatct tccctagagg
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3481 aaggacttga aagcatccat gtgtggactc aagtccttac ctctccgga gatgtagcaa
3541 aacgcatgga gtgtgtattg ttcccagtga cacttcagag agctggtagt tagtagcatg
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3721 tagtgcagct gattttaaca ataactactg tgttctggc aatagtgtgt tctgataga
3781 aatgaccaat attatactaa gaaaagatac gactttattt tctggtagat agaaataaat
3841 agctatatcc atgtactgta gtttttcttc aacatcaatg ttcattgtaa tgttactgat

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3901 catgcattgt tgagggtggc tgaatgttct gacattaaca gttttccatg aaaacgtttt
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4021 tttttctacc ttgaggtctt ttgacatgtg gaaagtgaat ttgaatgaaa aattttaagca
4081 ttgtttgctt attgttccaa gacattgtca ataaaagcat ttaagttgaa tgcgaccaac
4141 ctgtgtctct tttcattctg gaagtcttgt aagtttctga aagggtattt tggagaccag
4201 tttgtcaaga agggtagctg ctggaggggg acacaccctc tgtctgatcc cttatcaaaag
4261 aggacaagga aactatagag ctgatttttag aatattttac aaatacatgc cttccattgg
4321 aatgctaaga ttttctactg cttctgggga cgggaaaccg ctgtgttaaca gcttttgttg
4381 gaatacattt tttctgtttc agtactcgca gggggaataa tttaaatttt gttgtgctaa
4441 tattaatttc agatgttttg atcttaaagg aaccctttaa gcaaacagaa cctagctttg
4501 tacagactat ttttaacttt tattctcaca aaatcacgtg gagggttatt ctacttcaaa
4561 gatgagcaaa ttgaagaatg gttagaataa acaactttct tgatattccg ttatcggcat
4621 tagaatcttc ctgctcggtt tctatccag caggctgaac tgcctcttga tacttggtta
4681 aaaaaaattt tcaggccggg cgcggtggcc catgcctgta atcctagcac tttgggaggc
4741 cgaggcaggc ggatcacctg aggtcgggag ttcgagacca gcctgaccac catggagaaa
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4921 actgagattg cgccattgca ctccagcctg ggcaacaaga ttgaaactct gtttaaaaaa
4981 aaaagttttc actaatgtgt acattttttt gtactctttt attctcgaaa gggaaggagg
5041 gctattgcc tacccttat taataaatgc atttgtgttt ctggtttctc taataccata
5101 tgccttcat tcagtttata gtggcgga gttggggaga aaaagtgtct cagaaatcaa
5161 aagatatctc aaacagcaca aataatggct gatcgttctg caaacaataa gttacataat
5221 agctcaagaa ggagaagtca acatgactct gaacaagctt taacttagaa actttatcat
5281 ctttaaggaag aacgtgacct ttgtccagga cgtctctggt aatggggcac ttacacacac
5341 atgcacacgt acaaacacac gggaaaggag accgcccttc tgcctctgct cgcgagtatc
5401 acgcaggcac catgcactat gttttcacac acactgggtg gaagaagagc ttcagcgcca
5461 gtcttctaatt gctttggtga taatgaaaat cactgggtgc ttatggggtg tcatattcaa
5521 tgcagttaaa agtttttaatt caaaatgaca gttttactga ggttgatgtt ctgctctatg
5581 atatctctgc cctctccata aaaatggaca tttaaaagca acttaccgct ctttagatca
5641 ctcttatatc acacaccact tgggtgtctg tttctgctag acttgtgatg acagtgcct
5701 taggatccct gtttgcgtgt caaagggcaa atattttata gcctttaaat atacctaaac
5761 taaatacaga attaatataa ctaacaaaca cctggtctga aataacaagg tgacttacc
5821 ttggaaggaa ccagctggtg ggccaggagc ggtggctcac acctgtaatt ccagcattt
5881 gggaggctga gacaggagga tcaactggag ccaggagttt gagaccagcc tgggcaacat
5941 ggcaaaacc agtgtgtctc tgtgttccca gctacactac tcaggaggct gaggcaggag
6001 tatgacttga gcttgggagg gggagggttc agagaactga tattgcacca ccactgcact
6061 ccagcctggg tgacacagca aaaccctatc tcaaaaaaaa aaaaaaaaag aaggaacca
6121 gctggttcct gtagggtgtc aataataaca accagaggaa gaaaaggag acgatttccc
6181 agatgaagaa gggcagctgg accttcggac

(2) INFORMATION FOR SEQ ID NO:2659:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3565 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2659

1 gcagccgggc gccgcagaa gcgccaggc ccgcgcgcca cccctctggc gccaccgtgg
61 ttgagcccg gacgtttaca ctcatccta aaacgcttgt tataaaagca gtggctgcgg
121 cgctctgtac tccaaccgca tctgcagcga gcaactgaga agccaagact gagccggcgg
181 ccgcgggcga gcgaacgagc agtgaccgtg ctctacccca gctctgcttc acagcgccca
241 cctgtctccg cccctcggcc cctcgcccg ctttgcttaa ccgccacgat gatgttctcg
301 ggcttcaacg cagactacga ggcgtcatcc tcccgtgca gcagcgctc cccggccggg
361 gatagcctct ctactacca ctcaaccgca gactccttct ccagcatggg ctgcctgtc
421 aacgcgcagg taaggctggc ttcccgctcg cgcggggcgg ggggcttggg gtcgcggagg
481 aggagacacc gggcgggacg ctccagtaga tgagtgggg gctcccttgt gcctggaggg
541 aggetgccgt ggcgggagcg gtgcccgtc gggggctcgg gacttgctct gagcgcacgc
601 acgcttgcca tagtaagaat tggttcccc ttcgggaggc aggttcgttc tgagcaacct
661 ctggtctgca ctccaggacg gatctctgac attagctgga gcagacgtgt cccaagcaca
721 aactcgctaa ctagagcctg gcttcttcgg ggaggtggca gaaagcggca atccccctc
781 cccggcagc ctggagcagc gaggagggat gagggaggag ggtgcagcgg cgggtgtgt
841 aaggcagttt cattgataaa aagcgagttc attctggaga ctccggagcg gcgcctgcgt

901 cagcgcagac gtcagggata tttataacaa accccctttc aagcaagtga tgctgaagg
 961 ataacgggaa cgcagcggca ggatggaaga gacaggcact gcgctgcgga atgcctggga
 1021 ggaaaaggga gagacctttc atccaggatg agggacattt aagatgaaat gtccgtggca
 1081 ggatcgtttc tcttcaactgc tgcattcgcc actgggaact cgccccacct gtgtccggaa
 1141 cctgctcgct cactgctggc tttcccttct gttttgttct aggaattctg caccgacctg
 1201 gccgtctcca gtgccaactt cattcccacg gtcactgcca tctcgaccag tccggacctg
 1261 cagtggctgg tgcagcccgc cctcgtctcc tctgtggccc cctcgcagac cagagcccct
 1321 caccctttcg gactcccccgc cccctccgct ggggcttact ccagggtgga cgttgtgaag
 1381 accatgacag gaggccgagc gcagagcatt ggcaggaggg gcaagggtga acaggtgagg
 1441 aactctagcg tactcttctt gggaatgtgg gggctgggtg ggaagcagcc ccggagatgc
 1501 aggagcccag tacagaggat gaagccactg atggggctgg ctgcacatcc gtaactggga
 1561 gccctggctc caagcccatt ccattcccaac tcagactctg agtctcacc taagaagtac
 1621 tctcatagtt tcttccctaa gtttcttacc gcatgctttc agactgggct cttctttgtt
 1681 ctctgtctga ggatcttatt ttaaatgcaa gtcacaccta ttctgcaact gcaggtcaga
 1741 aatggtttca cagtgggtg ccaggaagca ggaagctgc aggagccagt tctactgggg
 1801 tgggtgaatg gagggtgatg cagacacttt tactgaatgt cggctctttt ttgtgattat
 1861 tctagttatc tccagaagaa gaagagaaaa ggagaatccg aagggaagg aataagatgg
 1921 ctgcagccaa atgccgcaac cggaggaggg agctgactga tacactccaa gcggtaggta
 1981 ctctgtgggt tgctcctttt taaaacttaa gggaaagtgg gagattgagc ataaggggcc
 2041 ttgagtaaga ctgtgtctta tgctttcctt tatccctctg tatacaggag acagaccaac
 2101 tagaagatga gaagtctgct ttgcagaccg agattgcaa cctgctgaag gagaaggaaa
 2161 aactagagtt catcctggca gtcaccgac ctgcctgcaa gatccctgat gacctgggct
 2221 tccagagaa gatgtctgtg gcttcccttg atctgactgg gggcctgcca gaggttgcca
 2281 ccccgagtc tgaggaggcc ttcaccctgc ctctcctcaa tgacctgag cccaagccct
 2341 cagtggaaac tgtcaagagc atcagcagca tggagctgaa gaccgagccc tttgatgact
 2401 tctgtttccc agcatcatcc aggccagtg gctctgagac agcccgtccc gtgccagaca
 2461 tggacctatc tgggtccttc tatgcagcag actgggagcc tctgcacagt ggctccctgg
 2521 ggatggggcc catggccaca gagctggagc cctgtgacac tccgggtggtc acctgtactc
 2581 ccagctgcac tgcctacacg tcttccctcg tcttcccta ccccgaggct gactccttcc
 2641 ccagctgtgc agctgccac cgaagggca gcagcagcaa tgagccttcc tctgactcgc
 2701 tcagctcacc cagctgtctg gccctgtgag ggggcaggga aggggaggca gccggcacc
 2761 acaagtggca ctgcccgagc tgggtgcatta cagagaggag aaacacatct tccctagagg
 2821 gttcctgtag acctaggag gaccttatct gtgcgtgaaa cacaccaggc tgtgggcctc
 2881 aaggacttga aagcatccat gtgtggactc aagtccttac ctcttccgga gatgtagcaa
 2941 aacgcatgga gtgtgtattg ttccagtgat cacttcagag agctggtagt tagtagcatg
 3001 ttgagccagg cctgggtctg tgtctctttt ctcttcttcc ttagtcttct catagcatta
 3061 actaatctat tgggttcatt attggaatta acctgggtgct ggatattttc aaattgtatc
 3121 tagtgcagct gattttaaca ataactactg tgttccctggc aatagtgtgt tctgattaga
 3181 aatgaccaat attatactaa gaaaagatac gactttattt tctggtagat agaaataaat
 3241 agctatatcc atgtactgta gtttttcttc aacatcaatg ttcatgtgaa tgttactgat
 3301 catgcattgt tgaggtggtc tgaatgttct gacattaaca gttttccatg aaaacgtttt
 3361 attgtgtttt taatttattt attaagatgg attctcagat atttatattt ttattttatt
 3421 tttttctacc ttgaggtctt ttgacatgtg gaaagtgaat ttgaatgaaa aatttaagca
 3481 ttgtttgctt attgttccaa gacattgtca ataaaagcat ttaagttgaa tgcgaccaac
 3541 cttgtgctct tttcattctg gaagt

(2) INFORMATION FOR SEQ ID NO:2660:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3198 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2660

1 cctcgaggtc gaagcttatt taaaagcata ttttccaatg cctgcttttag ctgtggaaaa
 61 ggaagactct ccgagggcaa atccaggagt catggaaaac aatggggcagg gcagcttggt
 121 gctgtgactg gatgggtctt taagggtgtt tcccttgaat aaagaatgag ggaattccac
 181 caggggaagg agagtagacc aaacatttgg tgaacagaaa gggagacaga gtccttagtg
 241 ttattcccca aatattcctg gagagncctt tgagacacct ggtaggatta tagtgatcta
 301 aagaggcatg gccatgtgac tgcttnggcc aatgatgtat gggcagaagt gatgtgtgcc
 361 ataagtggat gctctgacag acatgatgtt ccgagttcct tccccacagn caggatagct
 421 gtgaaaaggg gtatcaacac gaggcctcct tcagcctgag cccttttagtg actacaatga
 481 gcagagctac cctgccaacc tacaacggtc atgtagnaga aatgaccaac tttcactgga

541 ataagncact gatatgtag ggttgnttg tagggcagca taacactnnc tntcctgaca
601 gaactgggag tgagagataa ggctggagag agaaggagt ggattgtgaa aancctcttc
661 tccaaggcat aggaatcggg actctcctga ttgtaaggaa aagccaatga aggcctccaa
721 gcaggggagc taacatgaac agatttggtt ttttttggg tgaaatagc tatttctcaa
781 cataaggaga agatcagcct actaaaccac atgaggcaga gaggaacaca cagaacctta
841 gcaaaaagat atatatatt gcaaagtcct aagtcttgaa atttctaaat acaggagctc
901 tgaacggagt tacagtcaga ggatcaggca agaaaatttc ttctatgcca caagcgctat
961 ttctcttgca gataactaat actccacaag aaagtttgcc agagttaga aaatacaaa
1021 gaatgtaaca cagacctgag gtcaatttcc agctgcctgt gtgacctcaa caaagatact
1081 taacctctct gggcctatct cctcacatgt taaatctgga taataatata tgtctctcaa
1141 gacagttgtg gggagaaaac agcgtattta aattgcttag gagaatgcct ggcagataat
1201 aagtgtttta tacatgaaac tgatttttat tactgttatt aaaaaatatt tagaacacca
1261 actccctgaa tacaacagaa aatgattcag ggcaacagac agaggagaat gttctctcct
1321 tgagggaagca actggatctt gtcactactg tatacctacc taccaccacc cctccccagc
1381 tcagtgcctg gctcacagta ggctttcagt taccctctgc agatcagtga aagctagggtg
1441 agtgcccgga gtgaagaaaa gttggcaggt tccccactga taccagctgc tgttggtttc
1501 tgaacctca aagccgcaaa taccttaggg ctgggggcaa tgaacccaag gctgaattcc
1561 aagtctcagaa gcagcgaagt ctgaatttag aacctaggac ttaaaactgt gcagggtccaa
1621 cttcaagccc cagttttaga cagaggcttg ggaagatct gacttctaac ccggttcccc
1681 ctccctcctt cccctcgatg ctctcacag gaaagtacac ctggtcctgc caaatcgac
1741 tcttatatcc tggcatccta tccaggctct gcgaggatgg aaactgcgag gcaggggag
1801 gaagcgggct gtttggccac cactcccta gtgctgcagg cgacctgtc acactaaact
1861 cctggcagcc cagtgaagtg gcggcacccg cccacactgc agatgaggga aatgaagctc
1921 ggaggagtgc cgtgatttgc ttgcttcaca ctgtggtagc ctggccacga aagaaccaag
1981 gattccgact tcggattctt ccaccacaca cttcgtcctt aagggtgggg gcggggggag
2041 aataaaaata ccgcggaaaa ggaaccactt acatgtgtct agcgttctc agaggctacc
2101 caggatatgc gccaccacc cgccggagt gcagagattt gaagtccagg ttctaccctg
2161 ggctccgagt actactcgtt gactttatgc gagtgtcgc gccttctggg cttgttttcc
2221 cggaagcaac tcggcgcgga tggagtgtgt gtgtgcgcgc gcgcttatg ttgtgcgtgt
2281 tgtgttagcg tgtgcgtgtt gtccgagttt cggatcgctt acacctgtga acccccgcg
2341 cctttccccc acggtcccg agatgaagt gggtgcaac gagactcagc tgagcgtcca
2401 gtttcgggca atacaaatct ctggtcttct acgagcagcc acacgacccc gcggaccgtc
2461 gctcctgaac ttgaccgaga tgcaaaactt ggagtgttct caacgtgggg gccgactctc
2521 ggagaccgac ctaaaactta gtcccttag gctcgcccca cctggacttc acatagccac
2581 cttaagggcg gtattccgc ccccggaagt gcgggtggca gcgtacttg attctcagcc
2641 tccagcccg cgcggtggcg gcccggttg atgacttcgg gcccacaag tggaaacaac
2701 aaccaccctt gcgccgacc cctggcccaa aacaactgac caggttccct cgtcccggt
2761 ccctgcatcc ccgcgcatcc cgtccgcagc cgtgaacttg agccccctc catcagaggt
2821 tgcgagcgtc gccgctcggc agccaccgtc actagacagt caaaccccaa gacgtcagcc
2881 cacaatgcac cggcggggccc gggaaaaacg gcccggggag gggaaccggg aacagagggc
2941 cgagaggcgt gcggcagggg ggagggtagg agaaagaagg gcccgactgt aggagggcag
3001 cggagcatta ctcaccccg tgagcctccg cgggcccaa tcttattttc tttcacctt
3061 gtctccatgg tgacgggcgg gcccgcccc ctgagagcga cgcgagccaa tgggaaggcc
3121 ttgggtgac atcatgggct atttttaggg gttgactggt agcagataag tgttgagctc
3181 gggctgata agggctca

(2) INFORMATION FOR SEQ ID NO:2661:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3622 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2661

1 cccggggagg ggaccgggga acagagggct gagaggcgtg cggcaggggg gagggtagga
61 gaaagaaggg ccgactgta ggagggcagc ggagcattac ctcatccctg gagcctccgc
121 gggcccagag aagaatcttc taggggtggag tctccatggt gacgggcggg cccgcccccc
181 tgagagcgac gcgagccaat gggaaggcct tggggtgaca tcatgggcta ttttagggg
241 ttgactggta gcagataagt gttgagctcg ggctggataa gggtcagag ttgactgag
301 tgtggctgaa gcagcgaggc gggagtggag gtgcgaggag tcaggcagac agacagacac
361 agccagccag ccaggtcggc agtatagtcc gaactgcaaa tcttattttc tttcacctt
421 ctctctaact gccagagct agcgcctgtg gctcccgggc tgggtggttc ggagtgtcca
481 gagagccttg tctccagccg gccccgggag gagagccctg ctgccaggc gctgttgaca

541 gcggcgggaaa gcagcggtac cccacgcgcc cgccggggga cgtcggcgag cggctgcagc
601 agcaaagaac ttcccgccg gggaggaccg gagacaagtg gcagagtccc ggagcgaact
661 ttgcaagcc ttccctgcgt cttaggcttc tccacggcgg taaagaccag aaggcgccgg
721 agagccacgc aagagaagaa ggacgtgcgc tcagcttcgc tcgcaccggg tgttgaaactt
781 gggcgagcgc gagccgcggc tgccggggcg cccctccccc tagcagcgga ggaggggaca
841 agtcgtcgga gtcggggcgg ccaagaccgg ccgcccggcg gccactgcag ggtccgcact
901 gatccgctcc gcggggagag ccgctgctct gggaagttag ttcgctgcgc gactccgagg
961 aaccgctgcg ccgaagagc gctcagtgag tgaccgcgac ttttcaaagc cgggtagcgc
1021 gcgcgagtcg acaagtaaga gtgcgggagg catcttaatt aaccctgcgc tccctggagc
1081 gagctgtgta ggagggcgca gcggggacga cagccagcgg gtgcgtgcgc tcttagagaa
1141 actttccctg tcaagggtc cgggggggcg ggggtgtccc cgcttgccag agccctgttg
1201 cggccccgaa acttgtgcgc gcacgccaaa ctaacctcac gtgaagttag ggactgttct
1261 atgactgcaa agatggaaac gaccttctat gacgatgccc tcaacgcctc gttccctccg
1321 tccgagagcg gaccttatgg ctacagtaac ccaagatcc tgaacagag catgacctg
1381 aacctggccg acccagtggg gagctgaag ccgcacctcc gcgccaagaa ctcggacctc
1441 ctcacctcgc ccgacgtggg gctgctcaag ctggcgctgc ccgagctgga gcgctgata
1501 atccagtgca gcaacgggca catcaccacc acgcccagcc ccaccagtt cctgtgcccc
1561 aagaacgtga cagatgagca ggaggggttc gccgagggtc tcgtgcgcgc cctggccgaa
1621 ctgcacagcc agaacacgct gccacgcgtc acgtcggcgg cgcagccggg caacggggca
1681 ggcatgtgtg ctcccgcggt agcctcggtg gcagggggca gcgagcggc cggcttcagc
1741 gccagcctgc acagcgagcc gccggtctac gcaaacctca gcaacttcaa cccagggcgc
1801 ctgagcagcg gcggcggggc gccctcctac ggcgcgccgg cctggcctt tcccgccaa
1861 cccagcagc agcagcagcc gccgcaccac ctgcccagc agatgcccg gcagcaccg
1921 cggtgcagc cctgaagga ggagcctcag acagtgcgg agatgcccg cgagacaccg
1981 ccctgtccc ccacgacat ggagtcccag gagcggtatc aggcggagag gaagcgcag
2041 aggaaccgca tcgctgctc caagtgcga aaaaggaagc tggagagaat cgcccggtg
2101 aggaaaaaag tgaaaaacct gaaagctcag aactcggagc tggcgtccac ggccaactg
2161 ctcagggaac aggtggcaca gcttaaacag aaagtcagta accacgttaa cagtgggtg
2221 caactcatgc taacgcagca gttgcaaa tttgaagag agaccgtcgg gggctgaggg
2281 gcaacgaaga aaaaaaataa cacagagaga cagacttgag aacttgacaa gttgcgacg
2341 agagaaaaaa gaagtgtccg agaactaaag ccaagggtat ccaagttgga ctgggttcg
2401 tctgacgcg cccccagtgt gcacgagtg gaaggacttg gtcgcgccct cccttggcgt
2461 ggagccaggg agcggccgcc tcggggctgc cccgctttgc ggacgggctg tccccgcgc
2521 aacggaacgt tggactttcg ttaacattga ccaagaactg catggacctt acattcgatc
2581 tcattcagta ttaaggggg gagggggagg gggttacaaa ctgcaataga gactgtagat
2641 tgcttctgta gtactcctta agaacacaaa gcggggggag ggttggggag gggcggcagg
2701 agggaggttt gtgagagcga ggctgagcct acagatgaac tctttctggc ctgctttcgt
2761 taactgtgta tgtacatata tatattttt aatttgatta aagctgatta ctgtcaataa
2821 acagcttcat gcctttgtaa gttatttctt gtttgtttgt ttgggtatcc tgcccagtg
2881 tgtttgtaaa taagagattt ggagcactct gagtttacca tttgtaataa agtatataat
2941 tttttttatg tttgtttctg aaaattccag aaaggatatt taagaaaata caataaacta
3001 ttggaaaagta ctccctaac ctcttttctg catcatctgt agatcctagt ctatctaggt
3061 ggagttgaaa gagttaagaa tgctcgataa aatcactctc agtgcttctt actattaagc
3121 agtaaaaaact gttctctatt agacttagaa ataatgtac ctgatgtacc tgatgctatg
3181 tcaggcttca tactccacgc tccccagcg tatctatatg gaattgctta ccaaaggcta
3241 gtgcgatgtt tcaggaggtt ggaggaagg ggggtgcagt ggagaggac agcccactga
3301 gaagtcaaac atttcaaagt ttggattgca tcaagtggca tgtgctgtga ccattataa
3361 tgtagaaat tttacaatag gtgcttatc tcaaagcagg aattgggtggc agattttaca
3421 aaagatgtat ccttccaatt tggaatcttc tctttgacaa ttccatagata aaaagatggc
3481 ctttgtctta tgaatattta taacagcatt ctgtcacaa aaatgtattc aaataccaat
3541 aacagatctt gaattgcttc cttttactac tttttgttc ccaagttata tactgaagtt
3601 tttattttta gttgctgagg tt

(2) INFORMATION FOR SEQ ID NO:2662:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16595 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2662

1 gcaggaacag tgctagtatt gctcgagccc gagggctgga ggtagggga tgaaggtctg
61 ctccacgct ttgactgaa ttagggctag aattggggat ggggtaggg gcgcattcct

121 tcgggagccg aggettaagt cctcggggtc ctgtactega tgccgtttct cctatctctg
 181 agcctcagaa ctgtcttcag ttcccgtaaa agggtaaaaa ggcgctctct gccccatccc
 241 ccccgacctc gggaacaagg gtccgcattg aaccagggtgc gaatgttctc tctcattctg
 301 cggcggtccc gectcccctc ccccgagccgc gggccccgcc tcccccgca ctgcaccctc
 361 ggtgttggtc gcagcccgcg agcagttccc gtcaatccct ccccccttac acaggatgtc
 421 catattagga catctgctc agcaggtttc cacggccttt cctgttagcc ctggggggag
 481 ccattcccga aacccctcat cttggggggc ccacgagacc tctgagacag gaactgagaa
 541 atgctcacga gattaggaca gcgcaccaagg cgggggcagg gagctgagag cgctggggac
 601 gcagccgggc ggcgcagaa gcgccaggc ccgcgcgcca cccctctggc gccaccgtgg
 661 ttgagcccggt gacgtttaca ctcatccta aaacgcttgt tataaaagca gtgctgagcg
 721 cgctcgtac tccaaccgca tctgcagcga gcaactgaga agccaagact gagccggcgg
 781 ccgcccgcga gcgaacgagc agtgaccgtg ctccatccca gctctgcttc acagcgccca
 841 cctgtctccg cccctcgcc cctcgcccg ctttgccctaa ccgccacgat gatgttctcg
 901 ggcttcaacg cagactacga ggcgtcatcc tcccgtgca gcagcgcgtc cccggccggg
 961 gatagcctct ctactacca ctacccgca gactccttct ccagcatggg ctgcctgtc
 1021 aacgcgcagg taaggctggc ttcccgctgc cgccggggcg ggggcttggg gtcgaggagg
 1081 aggagacacc gggcgggacg ctccagtaga tgagtagggg gctcccttgt gctggagggg
 1141 aggctgcccgt ggcgggagcg gtgcgggctc gggggtctcg gactgtctct gagcgacgc
 1201 acgcttgcca tagtaagaat tggttccccc ttccgggagc aggttcgttc tgagcaacct
 1261 ctggtctgca ctccaggagc gatctctgac attagctgga gcagacgtgt cccaagcaca
 1321 aactcgctaa ctgagcctg gcttcttcgg ggaggtggca gaaagcggca atccccctc
 1381 ccccgccagc ctggagcagc gaggaggag gagggaggag ggtgcagcgg gcgggtgtgt
 1441 aaggcagttt cattgataaa aagcgagttc attctggaga ctccggagcg gcgctgcgt
 1501 cagcgcagac gtcagggata ttataacaa acccccttcc aagcaagtga tgctgaaggg
 1561 ataacgggaa cgcagcggca ggaaggaa gaacaggcact gcgctgagga atgctggga
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(2) INFORMATION FOR SEQ ID NO:2663:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6757 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2663

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 2281 ttgtgtggca ggatttttat tggcattaac atatttttgt ggctgctttt tctacacatc
 2341 cagatgggtcc ctctaactgg gctttctcta attttggat gtctgtcat tgtctcccaa
 2401 agtattttag agaagccctt taaaagctg ccttctctta ccactttgct ggaaagcttc
 2461 acaattgtca cagacaaaga tttttgttcc aatactcgtt ttgctcttat ttttcttgtt
 2521 tgcataatgc taaatgatat ttgcccctgc agtaattcta ctgggtgaaa acatgcaaa
 2581 aagaggaagt cacagaaaca tgtctcaatt cccatgtgct gtgactgtag actgtcttac
 2641 catagactgt cttacccatc ccttgatgat gctctgtttt ttccctcta atagctatgg
 2701 aaagatgcac agaagagta taatgtttta aaacataagg cattcatctg ccatttttca
 2761 attacatgct gacttccctt acaattgaga ttgcccata ggttaaacat ggttagaaac
 2821 aactgaaagc ataaaagaaa aatctaggcc ggggtgcagt gctcatgctt atattccctg
 2881 cactttggga ggccaaagca ggagatcgc ttgagcccag gaggttcaaga ccaacctggg
 2941 gaaacccctg ctctacaaaa aaacacaaaa aatagccagg catgggtggc tgatcatgtg
 3001 gtctcagata cttgggaggc tgaggtggga gggttgatca cttgaggctg agaggtcaag
 3061 gttgcagtga gccataatcg tggcactgca gtccagccta ggcaacagag tgagactttg
 3121 tctcaaaaaa agagaaattt tcttaataa gaaaagtaat ttttactctg atgtgcaata
 3181 catttgttat taaattttat atttaagatg gtacactag tcttaaattg tataaaatat
 3241 cccctaacat gtttaaatgt ccatttttat tcattatgct ttgaaaaata attatgggga
 3301 aatacatggt tgttattaaa tttattatta aagatagtag cactagtctt aaatttgata
 3361 taacatctcc taacttgttt aaatgtccat tttattctt tatgcttga aataaattat
 3421 ggggatccta tttagctctt agtaccacta atcaaaagtt cggcatgtag ctcatgatct
 3481 atgctgtttc tatgtcgttg aagcaccgga tgggggtagt gagcaaatct gccctgctca
 3541 gcagtcacca tagcagctga ctgaaaatca gcaactgctt agtagttttg atcagtttaa
 3601 cttgaaatcac taactgactg aaaattgaaat gggcaaataa gtgcttttgt cccagagata
 3661 tgcgggagac cctccacctt caagatggat atttcttccc caaggatttc aagatgaatt
 3721 gaaattttta atcaagatag tgtgctttat tctgttgtat tttttattat tttaatatac
 3781 tgtaagccaa actgaaataa cttttgctgt tttataggtt tgaagaacat agggaaaact
 3841 aagaggtttt gttttttatt ttgctgatga agagatatgt ttaaataatgt tgtattgttt
 3901 tgttttagta caggacaata atgaaatgga gtttatattt gttatttcta ttttgttata
 3961 ttttaataa gaattagatt gaaataaaat ataattggga ataactgca gaattgtggg
 4021 ttcttggtgt ttctctgac tctagtgcac tgatgatctc tgataaggct cagctgcttt
 4081 atagttctct ggctaattga gcagatactc ttcttgccag tggtaataacg attttttaag
 4141 aaggcagttt gtcaatttta atcttggtga tacctttata ctcttagggt attattttat
 4201 acaaaagcct tgaggattgc attctatttt ctatatgacc ctcttgatat ttaaaaaaca
 4261 ctatggataa caattcttca tttacctagt attatgaaag aatgaaggag ttcaaacaaa
 4321 tgtgtttccc agttaactag ggtttactgt ttgagccaat ataaatgttt aactgtttgt
 4381 gatggcagta ttcttaagt acattgcatt ttttctctaa tacagagttt aaataatttc
 4441 agtaattctt agatgattca gcttcatcat taagaatatc ttttgtttta tgttgagtta
 4501 gaaatgcctt catatagaca tagtctttca gacctctact gtcagttttc atttctagct
 4561 gctttcaggg ttttatgaat tttcaggcaa agctttaatt tatactaagc ttaggaagta
 4621 tggctaattgc caacggcagt ttttttcttc ttaattccac atgactgagg catatatgat
 4681 ctctgggtag gtgagttgtt gtgacaacca caagcacttt tttttttttt aaagaaaaaa
 4741 aggtagtgaa tttttaatca ctggagcttt aagaaggatt ctggagtata cttaggcctg
 4801 aaattatata tatttggtt ggaaatgtgt ttttctcaa ttacatctac aagtaagtac
 4861 agctgaaatt cagaggaccc ataagagttc acatgaaaaa aatcaattca tttgaaaagg
 4921 caagatgcag gagagaggaa gccttgcaaa cctgcagact gctttttgcc caatatagat
 4981 tgggtaaggc tgcaaaacat aagcttaatt agctcacatg ctctgctctc acgtggcacc
 5041 agtgtagtag ttgagagaat taggctgtag aacaaatggc cttctctttc agcattcaca
 5101 ccactacaaa atcatctttt atatcaacag aagaataagc ataaactaag caaaagggtc
 5161 ataagtacct gaaaccaaga ttggctagag atatatctta atgcaatcca ttttctgatg

5221 gattgttacg agttggctat ataatgtatg tatgggtattt tgatttgtgt aaaagtttta
5281 aaaatcaagc ttttaagtaca tggacatttt taaataaaat atttaaagac aatttagaaa
5341 attgccttaa tatcattgtt ggctaaatag aataggggac atgcatatta aggaaaaggt
5401 catggagaaa taatatttgt atcaacaaa tacattgatt tgcattgata cacattgaat
5461 ttgatccaat agtttaagga ataggttagga aaatttgggt tctatttttc gatttcctgt
5521 aaatcagtga cataaataat tcttagctta ttttatattt ccttgcctta aatactgagc
5581 tcagtaagtt gtgttagggg attattttctc agttgagact ttcttatatg acattttact
5641 atgttttgac ttcttgacta ttaaaaataa atagtagaaa caattttcat aaagtgaaga
5701 attatataat cactgcttta taactgactt tattatattt atttcaaagt tcatttaaag
5761 gctactattc atcctctgtg atggaatggg caggaatttg ttttctcata gtttaattcc
5821 aacaacaata ttagtctgat ccaaaataac ctttaatgct aaactttact gatgtatc
5881 caaagcttct ccttttcaga cagattaatc cagaagcagt cataaacaga agaataaggtg
5941 gtatgttctt aatgatatta ttctactaa tggaaataac tgtaatatta gaaattatgc
6001 tgctaattat atcagctctg aggtaatctt tgaatgttc agactcagtc ggaacaaatt
6061 ggaaaattta aatttttatt cttagctata aagcaagaaa gtaaacacat taatttcctc
6121 aacattttta agccaattaa aaatataaaa gatacacacc aatatcttct tcaggctctg
6181 acaggcctcc tggaaacttc cacatatattt tcaactgcag tataaagtca gaaaataaag
6241 ttaacataac ttctactaac acacacatat gtagatttca caaaatccac ctataattgg
6301 tcaaagtggt tgagaatata ttttttagta attgcatgca aaatttttct agcttccatc
6361 ctttctccct cgtttcttct ttttttgggg gagctggtaa ctgatgaaat cttttccac
6421 cttttctctt caggaaatat aagtggtttt gtttggtaa cgtgatacat tctgtatgaa
6481 tgaacatttg gagggaacaa tctactgaat ttctgtaatt taaaatattt tgctgctagt
6541 taactatgaa cagatagaag aatcttacag atgctgctat aaataagtag aaaatataaa
6601 tttcatcact aaaatatgct attttaaaat ctatttccta tattgtattt ctaatcagat
6661 gtattactct tattatttct attgtatgtg ttaatgattt tatgtaaaaa tgtaattgct
6721 tttcatgagt agtatgaata aaattgatta gtttgtg

(2) INFORMATION FOR SEQ ID NO:2664:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1089 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2664

1 cagtgcagctg tgattgcacc actgcaattt agcctgagtg acagaatgaa aaaaaattt
61 ttttaaagga aaacacaaaa agaatatgct gtcaacaggg atgggaggaa gaccaccttt
121 actgctatac acatttgtac ctttttagatg ttgatcaata tgaatatatt atacacacag
181 acacacacac agacacacac acacacacaa acaatacaat ttaatatcct aagaggatat
241 tgacattaga caggtacaaa agctctagaa atgaggactt tcctcagtga tgactttttt
301 caccaccaa gtcactcagg catcctgaca agggtaagtg aggggagcct ccttggaaaa
361 taaactcact tggatagtag actcctgcac atacctcaa gcccatctga aatgtccctc
421 cctacaggaa gttttccctg accctccaag aagcagagtt ctatttctact ggggaaaaa
481 ttcttctctt ttcttttttt tccttgccct gcacatgagc tagaaaacat ttcattgaa
541 tgggagtttc tgtgctgggc tctgtccctc cccatttcta cttccctcc ctcagcatgg
601 aagcctcttg aagtggggct ctgactccca gcctacagag agatttctag gaagtgttcg
661 actgataaac gcattggcaa aagtgaactg gggatgaggt ccaagacatc tgcggtgggg
721 ggttctccag acctagtgtt tcttccacta caaagtgggt ccaacagaga aaggtctgtg
781 ttcaccaggt ggcctgacc ctgggagagt ccagggcagg gtgcagctgc attcatgctg
841 ctggggaaca tgcctcagg ttactaccc catggacatg ttggcccccag ggactgaaaa
901 gcttaggaaa tggatttag aaatctgggg cagcccaaaa aggggagagg ccatggggag
961 aagggggggg tgagtggggg aaaggcagga gccagataaa aagccagctc cagcaggcgc
1021 tgctcactcc tccccatcct ctccctctgt cctctgtccc ctctgacctc gcaactgtccc
1081 agcaccatg

(2) INFORMATION FOR SEQ ID NO:2665:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5947 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2665

1 tttctcccat tctacttccc tcctcagcat tggaaagctg taagtgggct ctgactccca
61 gcctacagag agattcctta agaagtgggt cgactgataa acgcattgcc aaaagtgaac

121 tgggatgagg tccaagacat ctgcggtggg ggttctccag accttagtgt tcttccacta
181 caaagtgggt ccaacagaga aaggtctgtg ttcaccaggt ggccttgacc ctggagagtc
241 cagggcaggg tgcagctgca ttcatgctgc tggggaacat gccctcaggt tactcacccc
301 atgacatgtt gggcccaggg actgaaaagc ttaggaaatg gtattgagaa atctggggca
361 gccaaaaggg gagaggccat ggggagaagg gggggctgag tgggggaaag caggagcgag
421 ataaaaagcc agctccagca ggcgtgctc actcctcccc atcctctccc tctgtccctc
481 tgtccctctg accctgcact gtcccagcac catgggaccc acctcaggtc ccagcctgct
541 gctcctgcta ctaaccacc tccccctggc tctggggagt cccatgtact ctatcatcac
601 ccccaacatc ttgcggctgg agagcgagga gaccatggtg ctggaggccc acgacgcgca
661 aggggatgtt ccagtcactg ttactgtcca cgacttccca ggcaaaaaac tagtgctgtc
721 cagtgagaag actgtgctga cccctgccac caaccacatg ggcaacgtca ccttcacgat
781 cccagccaac agggagttca agtcagaaaa ggggcgcaac aagttcgtga ccgtgcaggc
841 caccctcggg acccaagtgg tggagaagg tggctgtggt agcctgcaga gcgggtacct
901 cttcatccag acagacaaga ccatctacac ccttggtccc acagttctct atcggatctt
961 caccgtcaac cacaagctgc taccctggg cggagcgtc atggtcaaca ttgagaaccc
1021 ggaaggcatc ccggtcaagc aggaactcct gtcttctcag aaccagcttg gcgtcttgcc
1081 cttgtcttgg gacattccgg aactcgtcaa catgggccag tggaaagatc gagcctacta
1141 tgaaaactca ccacagcagg tcttctccac tgagtttgag gtgaaggagt acgtgctgcc
1201 cagtttcgag gtcatagtgg agcctacaga gaaattctac tacatctata acgagaaggg
1261 cctggagggtc accatcaccc ccagggttct ctacgggaag aaagtggagg gaactgcctt
1321 tgtcatcttc gggatccagg atggcgaaac gaggatttcc ctgectgaat cctcaagcg
1381 cattccgatt gaggatggct cgggggaggt tgtgctgagc cggaaggtag tgcctgacgg
1441 ggtgcagAAC ctccgagcag aagacctggt ggggaagtct ttgtacgtgt ctgccaccgt
1501 catcttgac tcaggcagtg acatggtgca ggcagagcgc agcgggatcc ccactgtgac
1561 ctctccctac cagatccact tcaccaagac acccaagtac ttcaaacagg gaatgccctt
1621 tgacctcatg gtgttcgtga cgaacctga tggctctcca gcctaccgag tccccgtggc
1681 agtccagggc gaggacactg tgcagtctct aaccagggga gatggcgtgg ccaactcag
1741 catcaacaca caccacagcc agaagccctt gagcatcacg gtgcgcacga agaagcagga
1801 gctctcggag gcagagcagg ctaccaggac catgcaggct ctgccctaca gcaccgtggg
1861 caactccaac aattacctgc atctctcagt gctacgtaca gagctcagac ccggggagac
1921 cctcaacgtc aacttctctc tgcgaatgga ccgcgcccac gaggccaaga tccgctacta
1981 accctacgtg atcatgaaca agggcaggct gttgaaggcg ggacgccagg tgcgagagcc
2041 cggccaggac ctggtggtgc tgcctctgtc catcaccacc gacttcatcc ctctctccg
2101 cctggtgctg tactacacgc tgatcgtgct cagcggccag agggaggtgg tggccgactc
2161 cgtgtgggtg gacgtcaagg actcctgcgt gggctcgtg gtggtaaaaa gcggccagtc
2221 agaagacagg cagcctgtac ctgggcagca gatgacctg aagatagagg gtgaccagg
2281 ggcgcgggtg gtactggtgg ccgtggacaa ggcgtgttcc gtgctgaata agaagaacaa
2341 actgacgcag agtaagatct gggacgtggt ggagaaggca gacatcggt gcaccccggg
2401 cagtgaggaa gattacgcgg gtgtcttctc cgacgcaggg ctgaccttca cgagcagcag
2461 tggccagcag accgcccaga gggcagaact tcagtgccc cagccagccg cccgccagc
2521 ccgttccgtg cagctcacgg agaagcgaat ggacaaagtc ggcaagtacc ccaaggaggt
2581 gcgaagtgc tgcgaggacg gcatgcgggg gaacctcatg aggttctcgt gccagcgccg
2641 gacccttctc atctccctgg gcgaggcgtg caagaaggtc ttcctggact gctgcaacta
2701 catcacagag ctgcggcggc agcacgcgcg ggcagccac ctgggctgg ccaggagtaa
2761 cctggatgag gacatcattg cagaagagaa catcgtttcc cgaagtgagt tcccagagag
2821 ctggctgtgg aacgttgagg acttgaaaga gccaccgaaa aatggaatct ctacgaagct
2881 catgaatata tttttgaaag actccatcac cacgtgggag attctggctg tcagcatgtc
2941 ggacaagaaa gggatctgtg tggcagaccc ctctgaggtc acagtaatgc aggacttctt
3001 catcgacctg cggctaccct actctgttgt tcgaaacgag caggtggaaa tccgagccgt
3061 tctctacaat tacgggcaga accaagagct caaggtgagg gtggaactac tccacaatcc
3121 agccttctgc agcctggcca ccaccaagag gcgtcaccag cagaccgtaa ccatccccc
3181 caagtctctg ttgtccgttc catatgtcat cgtgccgcta aagaccggcc tgcaggaagt
3241 ggaagtcaag gctgccgtct accatcattt catcagtgac ggtgtcagga agtccctgaa
3301 ggtcgtgccg gaaggaaatc gaatgaacaa aactgtggt gtctgcaccc tggatccaga
3361 agcctcgggc cgtgaaggag tgcagaaaga ggcacatcca cctgcagacc tcagtgacca
3421 agtccccgac accgagtctg agaccagaat tctcctgcaa gggaccccag tggcccagat
3481 gacagaggat gccgtcgacg cggaaacggt gaagcacctc attgtgaccc cctcgggctg
3541 cggggaacag aacatgatcg gcatgacgcc caggttcac gctgtgcatt acctggatga
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3661 gaaggggtac acccagcagc tggccttcag acaaccagc tctgccttgg cggcctcgt
3721 gaaacgggca cccagcacct ggtgacgcgc ctacgtggtc aaggtcttct ctctgctgt
3781 caacctcatc gccatcgact cccaagtcct ctgcggggct gtaaatggc tgatcctgga

3841 gaagcagaag cccgacgggg tcttccagga ggtgcgccc gtgatacacc aagaaatgat
3901 tgggtgatta cggaacaaca acgagaaaga catggccctc acggccttgg tctcatctc
3961 gctgcaggag gctaaagata tttgcgagga gcagggtcaac agcctgccag gcagcatcac
4021 taaagcagga gacttccttg aagccaacta catgaaccta cagagatcct aactgtggc
4081 cattgctggc tatgctctgg cccagatggg caggctgaag gggcctcttc ttaacaaatt
4141 tctgaccaca gccaaagata agaaccgctg ggaggacctt ggtaagcagc tctacaacgt
4201 ggaggccaca tctatgccc tcttggccct actgcagcta aaagacttgg actttgtgcc
4261 tcccgtcgty cgttggctca atgaacagag atactacggt ggtggctatg gctctacca
4321 ggccaccttc atggtgttcc aagccttggc tcaataccaa aaggacgccc ctgaccacca
4381 ggaactgaac cttgatgtgt ccctccaact gccagccgc agctccaaga tccccaccg
4441 tatccactgg gaactcgcca gcctcctgcy atcagaagag accaaggaaa atgagggttt
4501 cacagtcaca gctgaaggaa aagcccaagg caccttgtcg gtggtgacaa tgtaccatgc
4561 taaggccaaa gatcaactca cctgtaataa attcgacctc aaggtcacca taaaaccagc
4621 accggaacaa gaaaagaggc ctcaggatgc caagaacact atgaccttg agatctgtac
4681 caggtaccgg ggagaccagg atgccactat gtctatattg gacatattcca tgatgactgg
4741 ctttgcctca gacacagatg acctgaagca gctggccaat ggtgttgaca gatacatctc
4801 caagtatgag ctggacaaa ccttctccga taggaacacc ctcatcatct acctggacaa
4861 ggtctcacac tctgaggatg actgtctagc tttcaaagt caccataact ttaatgtaga
4921 gcttatccag cctggagcag tcaaggctca cgcctattac aacctggagg aaagctgtac
4981 ccggttctac catccggaaa aggaggatgg aaagctgaac aagctctgcc gtgatgaact
5041 gtgcccgtgt gctgaggaga attgcttcat acaaaagtcg gatgacaagg tcaccttggg
5101 agaacggctg gacaaggcct gtgagccagg agtggactat gtgtacaaga cccgactggt
5161 caaggttcag ctgtccaatg actttgacga gtacatcatg gccattgagc agaccatcaa
5221 gtcaggctcg gatgaggtgc aggttggaaca gcagcgcacg ttcacagacc ccacaaagt
5281 cagagaagcc ctgaagctgg aggagaagaa acactacctc atgtggggtc tctcctccga
5341 tttctgggga gagaagccca acctcagcta catcatcggy aaggacactt ggggtggagca
5401 ctggcctgag gaggacgaat gccaaagcga agagaaccag aaacaatgcc aggacctcgg
5461 cgccttcacc gagagcatgg ttgtctttgg gtgccccaac tgaccacacc cccattccat
5521 gaacctacag agatcctaca ctgtggccat tgctggctat gctctggccc agatgggcag
5581 gctgaagggg cctcttctta acaattttct gaccacagcc aaagataaga accgctggga
5641 ggaccttggt aagcagctct acaacgtgga ggccacatcc tatgccctct tggccctact
5701 cgagctaaaa gactttgact ttgtgcctcc cgtcgtgcgt tggctcaatg aacagagata
5761 ctacggtggt ggctatggct ctaccagggc caccttcatg gtgttccaag ccttggctca
5821 ataccaaaag gacgcccctg accaccagga actgaacctt gatgtgtccc tccaactgcc
5881 cagccgcagc tccaagatca cccaccgtat ccactgggaa tctgccagcc tctgcgac
5941 agaagag

(2) INFORMATION FOR SEQ ID NO:2666:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5067 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2666

1 ctctcccca tctctcct ctgtccctct gtccctctga ccctgcactg tcccagcacc
61 atgggaccca cctcaggtcc cagcctgctg ctctgctac taaccacact cccctggct
121 ctggggagtc ccatgtactc tatcatcacc cccaacatct tgcggctgga gagcgaggag
181 accatggtgc tggaggccca cgacgcgcaa ggggatgttc cagtcaactg tactgtccac
241 gacttcccag gcaaaaaact agtctgttcc agtgagaaga ctgtgtgac ccctgccacc
301 aaccacatgg gcaacgtcac cttcacgac ccagccaaca gggagttcaa gtcagaaaag
361 gggcgcaaca agttcgtgac cgtgcaggcc acctcgga cccaagtgg ggagaagggtg
421 gtgtgtgtca gctgcagag cgggtacctc ttcacccaga cagacaagac catctacacc
481 cctggctcca cagttctcta tcggatcttc accgtcaacc acaagctgct acccgtgggc
541 cggacgggtca tggtaacat tgagaaccgg gaaggcatcc cggtaagca ggaactcctg
601 tcttctcaga accagcttgg cgtcttggcc ttgtcttggg acattccgga actcgtcaac
661 atgggccagt ggaagatccg agcctactat gaaaactcac cacagcaggt cttctccact
721 gagtttgagg tgaaggagta cgtgtgccc agtttcgagg tcatagtga gcctacagag
781 aaattctact acatctataa cgagaaggc ctggaggtca ccatcacgc caggttctc
841 tacgggaaga aagtggaggg aactgcctt gtcatcttcg ggatccagga tggcgaacag
901 aggatttccc tgcctgaatc cctcaagcgc attccgattg aggatggctc gggggagggt
961 gtgctgagcc ggaaggtact gctggacggg gtgcagaacc tccgagcaga agacctggtg
1021 gggaggtctt tgtacgtgtc tgccaccgtc atcttgact caggcagtg catggtgacg

[illegible]

4801 cagcgacgt tcatcagccc catcaagtgc agagaagccc tgaagctgga ggagaagaaa
 4861 cactacctca tgtggggtct ctctccgat tcttggggag agaagcccaa cctcagctac
 4921 atcatcggga aggacacttg ggtggagcac tggcctgagg aggacgaatg ccaagacgaa
 4981 gagaaccaga aacaatgcca ggacctcggc gccttcaccg agagcatggt tgtctttggg
 5041 tgcccaact gaccacccc ccattcc

(2) INFORMATION FOR SEQ ID NO:2667:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12103 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2667

1 cagtgaagtgc tgattgcacc actgcaattt agcctgagtg acagaatgaa aaaaaattt
 61 ttttaaagga aaacacaaaa agaataatgct gtcaacaggg atgggaggaa gaccacctt
 121 actgctatac acatttgtac ctttttagatg ttgatcaata tgaatatatt atacacacag
 181 acacacacac agacacacac acacacacaa acaataacaat ttaataatcct aagaggatat
 241 tgacattaga caggtacaaa agctctagaa atgaggactt tcctcagtgga tgactttttt
 301 caccacccaaa gtcactcagg catcctgaca agggtaagtg aggggagcct ccttgaaaaa
 361 taaactcact tggatagtga actcctgcac atacctcaaa gccatctga aatgtcccct
 421 cctacaggaa gttttccctg accctccaaag aagcagagtt ctatttcact ggggaaaaa
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 541 tgggagtttc tgtgctgggc tctgtccctc cccatttcta ctccctctc ctcagcatgg
 601 aagcctcttg aagtggggct ctgactccca gccacagag agattcctag gaagtgttcg
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 1681 agtccagggc gaggacactg tgcaagtctc aaccagggga gatggcgtgg ccaaactcag
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[illegible]

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841 tacgggaaga aagtggaggg aactgccttt gtcactcttc ggatccagga tggcgaacag
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1201 ggctctccag cctaccaggt ccccggtgga gtcaggggc aggcactgt gcagtctcta
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2101 gacaaagtgc gcaagtaccc caaggagctg cgaagtgtct gcgaggacgg catgcgggag
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3481 atggccctca cggcctttgt tctcatctcg ctgcaggagg ctaaagatat ttgcgaggag
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3841 tactacggtg gtggctatgg ctctaccag gccaccttca tgggtgtcca agccttggct
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4921 atcatcgga aggacacttg ggtggagcac tggcctgagg aggacgaatg ccaagacgaa
4981 gagaaccaga aacaatgcca ggacctcggc gccttcaccg agagcatggt tgtctttggg
5041 tgcccaact gaccacaccc ccattcc

(2) INFORMATION FOR SEQ ID NO:2668:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4199 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2668

1 cgtgttgatg atggagtgc ttcttttgtg cttaatctcc catctggagt gacggtgctg
61 gagtttaaatg tcaaaactga tgctccagat cttccagaag aaaatcaggc caggggaaggt
121 taccgagcaa tagcatactc atctctcagc caaagttacc tttatattga ttggactgat
181 aaccataagg ctttgctagt gggagaacat ctgaatatta ttgttaccac caaaagccca
241 tatattgaca aaataactca ctataattac ttgattttat ccaagggcaa aattatccac
301 tttggcacga gggagaaatt ttcagatgca tcttatcaaa gtataaacat tccagtaaca
361 cagaacatgg ttccttcac ccgacttctg gtctattata tcgtcacagg agaacagaca
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541 atggcaactg gaatggattc ctgggtggca ttagcagcag tggacagtgc tgtgtatgga
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1381 gtcattgac atcagggcac aaagtcctcc aaatgtgtgc gccagaaagt agagggctcc
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3421 gcatgtaaac cagagattgc atatgcttat aaagttagca tcacatccat cactgtagaa
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3541 cctgagaaaag actctgagat taccttcatt aaaaaggtaa cctgtactaa cgctgagctg
3601 gtaaaaggaa gacagtactt aattatgggt aaagaagccc tccagataaa atacaatttc
3661 agtttcaggt acatctaccc tttagattcc ttgacctgga ttgaatactg gcctagagac
3721 acaacatggt catcgtgtca agcattttta gctaatttag atgaatttgc cgaagatata
3781 tttttaaaat gatgctaaaa ttectgaagt tcagctgcat acagtttgca cttatggact
3841 cctgtgtgtg aagttcgttt ttttgttttc tctttttttt aaacattcat agctggctct
3901 atttgtaaag ctcactttac ttagaattag tggcacttgc ttttattaga gaatgatttc
3961 aaatgctgta actttctgaa ataacatggc cttggagggc atgaagacag atactcctcc
4021 aaggttattg gacaccggaa acaataaatt ggaacacctc ctcaaaccta ccactcagga
4081 atgtttgtcg gggccgaaag aacagtcctat tgaaggggag tattacaaaa acatggcctt
4141 tgcttgaaa gaaataccaa ggaacaggaa actgatcatt aaagcctgag tttgtcttc

(2) INFORMATION FOR SEQ ID NO:2669:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5444 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2669

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121 gaaaatattg tgattcaagt ttatggatac actgaagcat ttgatgcaac aatctctatt
181 aaaagttatc ctgataaaaa atttagttac tccctaggcc atgttcattt atcctcagag
241 aataaattcc aaaactctgc aatcttaaca atacaaccaa aacaattgcc tggaggacaa
301 aacccagttt cttatgtgta tttggaagtt gtatcaaagc atttttcaaa atcaaaaaga
361 atgccataaa cctatgacaa tggatttctc ttcattcata cagacaaacc tgtttatact

4141 ttttatttga aaatcgatac tcaggatatt gaagcatccc actacagagg ctacggaaac
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 4261 tctggatcct ctcattgagg gatggacatc tccttgccca ctggaatcag tgcaaatgaa
 4321 gaagacttaa aagcccttgt ggaaggggtg gatcaactat tcaactgatta ccaaatcaaa
 4381 gatggacatg ttattctgca actgaattcg attccctcca gtgatttctt ttgtgtacga
 4441 ttccggatat ttgaactctt tgaagtggg tttctcagtc ctgccacttt cacagtttac
 4501 gaataccaca gaccagataa acagtgtacc atgttttata gcaacttccaa tatcaaaatt
 4561 cagaaagtct gtgaaggagc cgcgtgcaag tgtgtagaag ctgattgtgg gcaaatgcag
 4621 gaagaattgg atctgacaat ctctgcagag acaagaaaac aaacagcatg taaaccagag
 4681 attgcatatg cttataaagt tagcatcaca tccatcactg tagaaaatgt ttttgtcaag
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(2) INFORMATION FOR SEQ ID NO:2670:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5444 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2670

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(2) INFORMATION FOR SEQ ID NO:2671:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15087 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2671

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(2) INFORMATION FOR SEQ ID NO:2672:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 143068 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2672

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(2) INFORMATION FOR SEQ ID NO:2673:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2277 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2673

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481	ctactcaaac	cgtttgctca	tttagaaact	taggtagggt	ggtctgagtg	cagtgtgtgt
541	taaaactaat	tttttttga	gacaaaagtct	cactctgtcg	cccaggctgg	aatgcaatgg
601	tgagatcttg	gctcactaca	acctccatct	cctgggttca	agcaattctt	ctgcctcagc
661	ctctcaagta	gctgggatta	caggcatgcg	ccaccacgcc	tggctaattt	ttgtattttt
721	ggtagagacg	gggttttctc	catgttggcc	aggctgggtc	cgaactcttg	acctcagggtg
781	atccacctgc	ctcgccctcc	acagggctag	gattagaggt	gtgagccacc	gcaccaggcc
841	gtttaaaact	aatggagcac	aaccagttac	caatatcttt	gttctctctc	cactccctct
901	gcttcaactt	gactagccta	aaataaataa	atttaaaaaa	ctgggcacag	tggtcacac
961	ctgtaatccc	agcacttttg	gaggccgagg	caggaggatt	acttgagcat	aggagttcaa
1021	gatcagcctg	ggcaactagt	gaaaaacat	ctcaaaaaag	aaaaattagc	caggcatggt
1081	ggcatgcacc	tgtggtttca	gctacttaga	gcagaggtgg	aggatcgctt	gattctggag
1141	ttcaagggtg	cattgagctg	tgatcgcgcc	agtgcactct	cgcttgggtg	acagagtaag
1201	acctgtgtct	aaaaaattta	aaacaaaaca	aaaaaaactg	gttatttgtc	tttttattgg
1261	tgaattataa	gagtttttaa	aaatatattc	tggaaacaaa	tcccttatta	gagatattgat
1321	ttgcaaatat	tttctccaat	tttttttttt	tttaaagaca	aagtttcact	ttgtcgccca
1381	ggctgggtct	gattcctggc	ttcaagagat	gctcttacct	ccacctcctg	aagcccaag
1441	ggctggaatt	acagccagtc	agcctgcacc	cagcctccaa	ttcttttagat	tttacatttt
1501	agaacccaaa	tgggttaaat	acactgttct	gtaatctgct	cttttcttta	atagtagttc
1561	atgtacatct	ttcaagggtc	agagaaagct	ctcactttct	ccccgtttta	tttttctctc
1621	cctcattctt	tttcaactgt	gcatagcatt	ccattgtaat	tttgccactg	tttattagac
1681	cagtcctctg	ctgagcttta	cagagccctt	agttggatgt	tagtgagAAC	catgacagca
1741	gtgagactgt	catctccctg	acatgtgtgc	agcttttggg	tgatgtgaaa	atgcaagcag
1801	gcacaggaaa	tgtctctaac	ttgcttacac	ttcctccctg	aacctgcggg	tttcacaact
1861	cctgcaggca	cacctccctc	cccgcctgcc	agtgtcacca	gctgttgccc	tctgtgagaa

1921 agtaccactg taagaggcca aagggcatag tcatttttct ctttcaccct gtctaggttg
 1981 ccagcaaatc ccacgggcct cctgacgtg cccctggggc cacaggtecc tcgagtgtg
 2041 gaaggatgaa ggattcctgc atcactgtga tggccatggc gctgctgtct gggttctttt
 2101 tcttcggtag gcaaggagg aggcaggga agggacatgt gtctgtgacc agagaaactg
 2161 cagggttggtg tgcagctgga gtaaacagg agctgcccc taaaagtggg attggcctta
 2221 gggatatggg gcccaggga tcttggaagg agaaaggga gagcggggaa ataaaaag

(2) INFORMATION FOR SEQ ID NO:2674:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1520 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2674

1 gatcttggt cactacaacc tccatctggt gggttcaagc aattcttctg cctcagcctc
 61 tcaagtagct gggattacag gcatgcgcca ccacgcccgg ctaatttttg tatttttggg
 121 agagacgggg gtttctccat gttggccagg ctggtctcga actcttgacc tcagggtgatc
 181 cactgcctc ggctctccac aggctaggat tagagggtgt agccacgcga ccaggccgtt
 241 taaaactaat ggagcacaac cagttacca tatctttgtt ccttctccac tccctctgct
 301 tcacttgact agcctaaaat aaataaattt aaaaaactgg gcacagtggc tcacacctgt
 361 aatcccgaca ctttgaggag ccgaggcagg aggattactt gagcatagga gttcaagatc
 421 agcctgggca acatagtga aaacatctc aaaaaagaaa aaattagcca ggcattggtg
 481 catgcacctg tggtttcagc tacttaggag cagagggtgg aggatcgctt gattctggga
 541 gttcaagggt gcattgagct gtgatcgcg cagtgcactc tcgcttgggt gacagagcaa
 601 gacctgtgtc caaaaaattt aaaacaaaac aaaaaaact gggtatttgt ctttttattg
 661 ttgaattata agagttttaa aaaatatatt ctggaacaaa atcccttatt agagatatga
 721 tttgcaata ttttctccaa ttttttttt tttaaagaca aagtttactt ttggtgccca
 781 ggctggtctt cattctggc ttcaagagat gctcttacct ccacctctg aagccccaaa
 841 gggctggaat tacagccagt gagccactgc acccagcctc caattcttta gattttacat
 901 tttagaacca aaatgggtta aatacactgt tctgtaactc gctcttttct ttaatagtag
 961 ttcattgtaca tctttcaagg tccagagaaa gctctcactt tctccccgtt ttatttttcc
 1021 ttccctcatt ctttttact gctgcatagc attccattgt aattttgcca ctgtttatta
 1081 gaccagtcct ctgctgagct ttacagagcc cttagtggg atgttagtga gaaaccatga
 1141 cagcagtgga gactgtcatc tccctgacat gctgtcagct tttggatgat gtgaaaatgc
 1201 aagcaggcac aggaaatgtc tctctaactt gcttacactt cctccctgaa ccctgcgggt
 1261 tcacaactcc tgcaggcaca cctccctccc cgcctgccag tgaccaccag ctgttgccctc
 1321 tgtgagaaag taccactgta agaggccaaa gggcatgac attttctctc ttcacctgt
 1381 ctagggtgac agcaaatccc acgggcctcc tgacgtgcc cctggggcca caggtccctc
 1441 gagtgtgga aggatgaagg attcctgcat cactgtgatg gccatggcgc tgctgtctg
 1501 gttctttttc ttcggtaggc

(2) INFORMATION FOR SEQ ID NO:2675:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2776 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2675

1 cagggcagac tggtagcaaa gccccacgc ccagccaggga gcaccgccgc ggactccagc
 61 acaccgaggg acatgctggg cctgcgcccc ccactgctcg ccctgggtgg gctgctctcc
 121 ctgagggtgcg tcctctctca ggagtgcacg aagttcaagg tcagcagctg ccgggaatgc
 181 atcgagtcgg gggccggctg cactggtgac cagaagctga acttcacagg gccgggggat
 241 cctgactcca ttcgctgcga caccggcca cagctgctca tgaggggctg tgcggctgac
 301 gacatcatgg accccacaag cctcgctgaa acccaggaa accacaatgg gggcagaag
 361 cagctgtccc caaaaaaagt gacgttttac ctgcgaccag gccaggcagc agcgttcaac
 421 gtgaccttcc ggcggggcaa gggctacccc atcgacctgt actatctgat ggacctctcc
 481 tactccatgc ttgatgacct caggaaatgc aagaagctag gtggcgacct gctccgggac
 541 ctcaacgaga tcaccgagtc cggccgcat ggcttcgggt ccttcgtgga caagaccgtg
 601 ctgcccgttcg tgaacacgca ccctgataag ctgcgaaacc catgccccaa caaggagaaa
 661 gagtgcacgc cccggtttgc cttcaggcac gtgctgaagc tgaccaacaa ctccaaccag
 721 tttcagaccg aggtcgggaa gcagctgatt tccggaacc tgatgcacc cgagggtggg
 781 ctggacgcca tgatgcaggt cggcgctgc cggaggaata tcgctggcg caacgtcacg
 841 cggtgctggt tgtttgccac tgatgacggc ttccatttgc cgggcgacgg aaagctgggc

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901 gccatcctga cccccaacga cggctcgtgt cacctggagg acaacttgta caagaggagc
961 aacgaattcg actaccatc ggtgggccag ctggcgacac agctggctga aaacaacatc
1021 cagcccatct tcgcgggtgac cagtaggatg gtgaagacct acgagaaact caccgagatc
1081 atccccaagt cagccgtggg ggagctgtct gaggactcca gcaatgtggt ccattctcatt
1141 aagaatgctt acaataaact ctctccagg gtcttctctg atcacaacgc cctccccgac
1201 accctgaaag tcacctacga ctcttctgac agcaatggag tgacgcacag gaaccagccc
1261 agaggtgact gtgatggcgt gcagatcaat gtcccgatca ccttccagggt gaaggtcacg
1321 gccacagagt gcattccagga gcagtcgttt gtcattccgg cgctgggctt cacggacata
1381 gtgaccgtgc aggttctctcc ccagtgtgag tgccgggtgcc gggaccagag cagagaccgc
1441 agcctctgcc atggcaaggg ctcttggag tgccgcatct gcaggtgtga cactggctac
1501 attgggaaaa actgtgagt ccagacacag ggccggagca gccaggagct ggaaggagc
1561 tgccggaagg acaacaactc catcatctgc tcagggtgg gggactgtgt ctgctggcag
1621 tgctgtgtcc acaccagcga cgtccccggc aagctgatat acgggcagta ctgaggtgt
1681 gacaccatca actgtgagcg ctacaacggc caggtctgag cgggcccggt gagggggctc
1741 tgcttctgcg ggaagtgcgg ctgccaccgg ggcttggagg gctcagcgtg ccagtgcgag
1801 aggaccactg agggctgcct gaaccgcgg cgtgttgagt gtagtggtcg tggccgtgc
1861 cgctgcaacg tatgcgagt ccattcaggc taccagctgc ctctgtgcca ggagtgcgcc
1921 ggctgcccc caccctgtgg caagtacatc tctgcgcgg agtgccctgaa gttcgaaaag
1981 ggcccccttg ggaagaactg cagcgcggcg tgtccgggcc tgcagctgtc gaacaacccc
2041 gtgaagggca ggacctgcaa ggagagggac tcagagggt gctgggtggc ctacacgctg
2101 gagcagcagt acgggatgga ccgctacctc atctatgtgg atgagagccg agagtgtgtg
2161 gcaggccccc acatcgccgc catcgtcggg ggcaccgtgg caggcatcgt gctgatccgc
2221 atttctctgc tggtcattct gaaggtctct atccacctga gcgacctccg ggagtacagg
2281 cgctttgaga aggagaagct caagtcccag tggacaatg ataatccct tttcaagagc
2341 gccaccacga cggtcatgaa ccccaagttt gctgagagtt aggagcaatt ggtgaagaca
2401 aggcgcgtcg gaccaccat gtctgcccc tcacgcggcc gagacatggc ttggccacag
2461 ctcttgagga tgtaccaat taaccagaaa tccagttatt ttccgccctc aaaatgacag
2521 ccattggccg ccggtgcttc tgggggctcg tcggggggac agctccactc tgactggcac
2581 agtctttgca tggagacttg aggagggtct gaggttggtg aggttaggtg cgtgtttctc
2641 gtgcaagtca ggacatcagt ctgattaaag gtggtgccaa tttatttaca tttaaacttg
2701 tcagggtata aaatgacatc ccattaatta tattgttaat caatcacgtg tatagaaaaa
2761 aaaataaaac ttcaat

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(2) INFORMATION FOR SEQ ID NO:2676:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2291 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2676

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1 ctgccccctg tggggctgct ctccctcggg tgcgtcctct ctccaggagtg cacgaagttc
61 aaggtcagca gctgccggga atgcacgag tcggggcccg gctgcacctg gtgccagaag
121 ctgaacttca cagggccggg ggatcctgac tccattcgct gcgacaccgg gccacagctg
181 ctcatgaggg gctgtgcggc tgacgacatc atggacccca caagcctcgc tgaaaccagc
241 gaagaccaca atgggggcca gaagcagctg tccccacaaa aagtgcgct ttacctgcga
301 ccaggccagg cagcagcgtt caacgtgacc ttccggcggg ccaagggtta ccccatcgac
361 ctgtactatc tgatggacct ctctactcc atgcttgatg acctcaggaa tgtcaagaag
421 ctaggtggcg acctgctccg ggccctcaac gagatcacgg agtccggccg cattggcttc
481 gggtccttcg tggacaagac cgtgctgccc ttctgaaca cgcaccctga taagtgcga
541 aaccatgccc ccaacaagga gaaagagtgc ccgccccctg ttgccttcag gcacgtgctg
601 aagctgacca acaactccaa ccagtttcag accgaggtcg ggaagcagct gatttccgga
661 aacctggatg caccgagggt tgggctggac gccatgatgc aggtcgccgc ctgcccggag
721 gaaatcggtt ggcgcaacgt cagcgcgctg ctggtgtttg ccaactgatg cggcttccat
781 ttccggggcg acggaaagct gggcgccatc ctgaccccca acgacggccg ctgtcacctg
841 gaggaacaat tgtacaagag gagcaacgaa ttcgactacc catcggtggg ccagctggcg
901 cacaagctgg ctgaaaacaa catccagccc atcttcgctg tgaccagtag gatggtgaag
961 acctacgaga aactcaccga gatcatcccc aagtcagccg tgggggagct gtctgaggac
1021 tccagcaatg tgggtcatct cattaagaat gcttacaata aactctctc cagggtcttc
1081 ctggtacaca acgcccctcc cgacacctg aaagtcacct acgactcctt ctgcagcaat
1141 ggagtgcgcg acaggaacca gccacagagt gactgtgatg gcgtgcagat caatgtcccc
1201 atcaccttcc aggtgaaggt cagggccaca gagtgcaccc aggagcagtc gtttgtatc
1261 cgggcgctgg gcttcacgga catagtgacc gtgcaggtcc ttccccagtg tgagtgcggg

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1321 tgccgggacc agagcagaga ccgcagcctc tgccatggca agggcttctt ggagtgcggc
1381 atctgcaggt gtgacactgg ctacattggg aaaaactgtg agtgccagac acagggccgg
1441 agcagccagg agctggaagg aagctgccgg aaggacaaca actccatcat ctgctcaggg
1501 ctgggggact gtgtctgcgg gcagtgcctg tgccacacca gcgacgtccc cggcaagctg
1561 atatacgggc agtactgcga gtgtgacacc atcaactgtg agcgctacaa cggccaggtc
1621 tgcggcggcc cggggagggg gctctgcttc tgcgggaagt gccgctgcca cccgggcttt
1681 gagggctcag cgtgccagtgc cgagaggacc actgagggct gcctgaaccc gcggcggtgtt
1741 gagtgtagtg gtcgtggccg gtgcccgtgc aacgtatgcg agtgccattc aggtaccag
1801 ctgcctctgt gccaggagtg ccccggtgc cctcaccct gtggcaagta catctcctgc
1861 gccgagtgcc tgaagttcga aaagggcccc tttgggaaga actgcagcgc ggcgtgtccg
1921 ggctgcagc gtgcgaacaa ccccgtaag ggcaggacct gcaaggagag ggactcagag
1981 ggctgctggg tgccctacac gctggagcag caggacggga tggaccgcta cctcatctat
2041 gtggatgaga gccgagagtg tgtggcaggc cccaacatcg ccgccatcgt cgggggcacc
2101 gtggcaggca tcgtgctgat cggcattctc ctgctggtca tctggaaggc tctgatccac
2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtggaac
2221 aatgataatc cccttttcaa gagcgccacc acgacggtca tgaaccccaa gtttgcgtgag
2281 agttaggagc a

(2) INFORMATION FOR SEQ ID NO:2677:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8864 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2677

1 gagctcagaa attcaagacc agcctgggca aggtagagag acccccatgt ctacaaaaaa
61 taaaaaatga ttagtcaggt gtggtggccc gcacctgtag ttccagctac tcaggacgct
121 gaggtgggag aatgactcga gcccgtagt tgaggctgca gtgagccgag atcacaccac
181 tccagcctag gcaagagtga gaccctctct caaaaaaaaa aaaaaaaaaa aaaaaaaaaa
241 aaccatcaaa atgttttgca cagcagtcac gccattttac atttctgcca gcaatgtgca
301 ccaggcttcc agtttcttca catcttcaact aactcttatt tcctttgctt taaactctaa
361 ccatcaaagt aggtgtaaag ggtatctcac tgtggtttga tttgcatttc tctaagtact
421 aatagtgtta agtatcattt catgtgcatg ttggccattt atatgtcatt ggagaaatgt
481 ctactcaaac cgtttgctca tttagaaact taggtaggtt ggtctgagtg cagtgggtgt
541 taaaactaat tttttttga gacaaagtct cactctgtcg ccaggctgg aatgcaatgg
601 tgagatcttg gctcactaca acctccatct cctgggttca agcaattctt ctgcctcagc
661 ctctcaagta gctgggatta caggcatgcg ccaccacgcc tggctaattt ttgtattttt
721 ggtagagacg ggggtttctc catgttgccc aggctggtct cgaactcttg acctcaggtg
781 atccacctgc ctcggcctcc acagggctag gattagaggt gtgagccacc gcaccaggcc
841 gtttaaaact aatggagcac aaccagttac caatatcttt gtctcttctc cactccctct
901 gcttcaactt gactagccta aaataaataa atttaaaaaa ctgggcacag tggctcacac
961 ctgtaatccc agcactttgg gaggcgagg caggaggatt acttgagcat aggagttaa
1021 gatcagcctg ggcaactagt gaaaaacat ctcaaaaaag aaaaattagc caggcatggt
1081 ggcagtcacc tgtggtttca gctacttaga gcagaggtgg aggatcgctt gattctggag
1141 ttcaaggttg cattgagctg tgatcgcgcc agtgcactct cgcttggttg acagagtaag
1201 acctgtcttc aaaaaattta aaacaaaaca aaaaaaactg gttatttgtc tttttatttg
1261 tgaattataa gagtttttaa aaatatattc tggaaacaaa tcccttatta gagatatgat
1321 ttgcaaatat tttctccaat tttttttttt tttaaagaca aagtttcaact ttgtcgccca
1381 ggctggtctt gattcctggc ttcaagagat gctcttacct ccacctctcg aagcccaag
1441 ggctggaatt acagccagtg agcctgcacc cagcctccaa ttctttagat tttacatttt
1501 agaaccaaaa tgggttaaat aactgttct gtaatctgct cttttcttta atagtagttc
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1621 cctcattctt tttcactgct gcatagcatt ccattgtaat tttgccactg tttattagac
1681 cagtccctctg ctgagcttta cagagccctt agttggatgt tagtgagaac catgacagca
1741 gtgagactgt catctccctg acatgctgtc agcttttggg tgatgtgaaa atgcaagcag
1801 gcacaggaaa tgtctctaac ttgcttacac ttcctccctg aacctgctgg tttcacaact
1861 cctgcaggea cacctccctc cccgcctgcc agtgtcacca gcctgttgcc tctgtgagaa
1921 agtaccactg taagaggcca aaggcatga tcattttcct ctttcaccct gtctagggtg
1981 ccagcaaatc ccacgggctt cctgacgctg cccctggggc cacaggctccc tcgagtgtctg
2041 gaaggatgaa ggattcctgc atcactgtga tggccatggc gctgctgtct ggttctttt
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2221 gggatatggg gccccagggg tcttgggaagg agaaaagggga gagcgggggaa ataaaaa
1 gatcttggct cactacaacc tccatctggg ggggttcaagc aattcttctg cctcagcctc
61 tcaagtagct gggattacag gcatgcgcca ccacgcccgg ctaatttttg tatttttggg
121 agagacgggg gtttctccat gttggccagg ctggtctcga actcttgacc tcagggtgac
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361 aatcccagca ctttgggagg ccgaggcagg aggattactt gagcatagga gttcaagatc
421 agcctgggca acatagtga aaaccatctc aaaaaagaaa aaattagcca ggcattggg
481 catgcacctg tggtttcagc tacttaggag cagaggtggg aggatcgctt gattctggga
541 gttcaaggtt gcattgagct gtgatcgcg cagtgcactc tcgcttgggt gacagagcaa
601 gacctgtgct caaaaaattt aaaacaaaac aaaaaaact ggttatttgt ctttttattg
661 ttgaattata agagttttta aaaaatatatt ctggaaacaa atcccttatt agagatatga
721 tttgcaaata ttttctccaa tttttttttt tttaaagaca aagtttctc tttgtgccc
781 ggctggtctt cattcctggc ttcaagagat gctcttacct ccacctctg aagcccaaaa
841 gggctggaat tacagccagt gagccactgc acccagcctc caattcttta gattttacat
901 tttagaacca aaatgggtta aatacactgt tctgtaactc gctcttttct ttaatagtag
961 ttcattgtaca tctttcaagg tccagagaaa gctctcactt tctccccgtt ttatttttcc
1021 ttcctcatt ctttttctc gctgcatagc attccattgt aattttgcca ctgtttatta
1081 gaccagtctt ctgctgagct ttacagagcc cttagtgtgg atgttagtga gaaaccatga
1141 cagcagtggg gactgtcacc tccctgacat gctgtcagct tttggatgat gtgaaaatgc
1201 aagcaggcac aggaaaatgtc tctctaactt gcttacaact cctccctgaa cctcggtt
1261 tcacaactcc tgcaggcaca cctccctccc cgctgccag tgtcaccagc ctgttgctc
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1381 ctaggttgcc agcaaatccc acgggctccc tgacgtgccc cctggggcca caggtccctc
1441 gagtgcaggg aggatgaagg attcctgcat cactgtgatg gccatggcgc tgcgtctggt
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301 gacatcatgg accccacaag cctcgctgaa acccaggaag accacaatgg gggccagaag
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421 gtgaccttcc ggccggccaa gggctacccc atcgacctgt actatctgat ggacctctcc
481 tactccatgc ttgatgacct caggaatgtc aagaagctag gtggcgacct gctccgggcc
541 ctcaacgaga tcaccgagtc cggcgcatt ggcttcgggt ccttcgtgga caagaccgtg
601 ctgcccgttc tgaacacgca cctgataag ctgcgaaacc catgccccaa caaggagaaa
661 gagtgccagc ccccgtttgc cttcaggcac gtgctgaagc tgaccaacaa ctccaaccag
721 tttcagaccg aggtcgggaa gcagctgatt tccggaaacc tggatgcacc cgaggggtgg
781 ctggacgcca tgatgcaggc cgccgctgc ccggaggaaa tccggtggcg caacgtcacg
841 cggtgctggt tgtttgccac tgatgacggc ttccatttcg cggcgacag aaagctgggc
901 gccatcctga cccccaacga cggcgctgt cacctggagg acaacttgta caagaggagc
961 aacgaattcg actacccatc ggtgggcccag ctggcgaca agctggctga aaacaacatc
1021 cagcccatct tcgcggtgac cagtaggatg gtgaagacct acgagaaact caccgagatc
1081 atccccaaat cagccgtggg ggagctgtct gaggactcca gcaatgtggt ccatctcatt
1141 aagaatgctt acaataaact ctccctcagg gtcttctctg atcacaacgc cctccccgac
1201 accctgaaag tcacctacga ctccttctgc agcaatggag tgacgcacag gaaccagccc
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1321 gccacagagt gcattccagga gcagtctgtt gtcattccgg cgctgggctt cacggacata
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1441 agcctctgcc atggcaagg cttcttggag tgcggcatct gcaggtgtga cactggctac
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1621 tgctgtgcc acaccagcga cgtcccgggc aagctgatat acgggcagta ctgcaggtgt
1681 gacaccatca actgtgagcg ctacaacggc caggtctgcg gggcccggg gaggggctc
1741 tgccttctgc ggaagtgcg ctgccaccgg ggttttgagg gctcagcgtg ccagtgcag
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1861 cgctgcaacg tatgcgagtg ccattcaggc taccagctgc ctctgtgcca ggagtgcctc
1921 ggctgcccct caccctgtgg caagtacatc tctgcgccc agtgccctgaa gttcgaaaag
1981 gggccctttg ggaagaactg cagcggcggc tgcggggcc tgcagctgtc gaacaacccc
2041 gtgaagggca ggacctgcaa ggagagggac tcagagggtc gctgggtggc ctacacgctg

2101 gagcagcagg acgggatgga ccgctacctc atctatgtgg atgagagccg agagtgtgtg
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2281 cgctttgaga aggagaagct caagtcccag tggacaacatg ataatcccct tttcaagagc
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2761 aaaataaaac ttcaat
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121 ctgaacttca cagggccggg ggatcctgac tccattcgtc gcgacaccg gccacagctg
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241 gaagaccaca atgggggcca gaagcagctg tccccacaaa aagtgcgct ttacctgcga
301 ccaggccagg cagcagcgtt caacgtgacc ttccggcggg ccaagggcta ccccatcgac
361 ctgtactatc tgatggacct ctccactacc atgcttgatg acctcaggaa tgtcaagaag
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481 gggctccttg tggacaagac cgtgctgcgg ttcgtgaaca cgcacctga taagctgcga
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601 aagctgacca acaactccaa ccagtttcag accgaggtcg ggaagcagct gatttccgga
661 aacctggatg caccgaggg tgggctggac gccatgatgc aggtcgccgc ctgcccggag
721 gaaatcggtt ggcgcaacgt cagcggtctg ctggtgtttg ccaactgatg cggcttccat
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841 gaggacaact tgtacaagag gagcaacgaa ttcgactacc catcggtggg ccagctggcg
901 cacaagctgg ctgaaaacaa catccagccc atcttcgcgg tgaccagtag gatggtgaag
961 acctacgaga aactcaccga gatcatcccc aagtcagccg tgggggagct gtctgaggac
1021 tccagcaatg tggatcatct cattaagaat gcttacaata aactctcctc cagggtcttc
1081 ctggatcaca acgcccctcc cgacaccctg aaagtcacct acgactcctt ctgcagcaat
1141 ggagtgacgc acaggaacca gccagagggt gactgtgatg gcgtgcagat caatgtcccg
1201 atcaccttcc aggtgaaggt cagggccaca gactgcaccc aggagcagtc gtttgtcatc
1261 cgggcgctgg gcttcacgga catagtacc gtgcaggtcc tccccagtg tgagtgccgg
1321 tgccgggacc agagcagaga ccgcagcctc tgccatggca agggcttctt ggagtgcggc
1381 atctgcaggt gtgacactgg ctacattggg aaaaactgtg agtgccagac acagggccgg
1441 agcagccagg agctggaagg aagctgcggg aaggacaaca actccatcat ctgctcaggg
1501 ctgggggact gtgtctgcgg gcagtgctc tgccacacca gcgacgtccc cggcaagctg
1561 atatacgggc agtactgcga gtgtgacacc atcaactgtg agcgctacaa cggccaggtc
1621 tgccggcgcc cggggagggg gctctgcttc tgcgggaagt gccgtgccca cccgggcttt
1681 gagggctcag cgtgccagtg cgagaggacc actgagggtc gcctgaacce cggcgctgtt
1741 gactgtatgt gtcgtggcgg gtgcgctgac aacgtatgcy agtgccattc aggtaccag
1801 ctgcctctgt gccaggagtg ccccggtgc ccctcaccct gtggcaagta catctcctgc
1861 gccagtgacc tgaagttcga aaagggcccc tttgggaaga actgcagcgc ggcgtgtccg
1921 ggcctgcagc tgtcgaacaa ccccgtaag ggcaggacct gcaaggagag ggactcagag
1981 ggctgctggg tggcctacac gctggagcag caggacggga tggaccgcta cctcatctat
2041 gtggatgaga gccgagagtg tgtggcaggg cccaacatcg ccgcatcgt cgggggcacc
2101 gtggcaggca tcgtgctgat cggcattctc ctgctggtca tctggaaggg tctgatccac
2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtggaa
2221 aatgataatc cccttttcaa gagcgccacc acgacgggtc tgaacccaa gtttgctgag
2281 agttaggagc a

(2) INFORMATION FOR SEQ ID NO:2678:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1539 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2678

1 ggaattccgg gcccggtctt tcttcccggc gccgcgggcc tgggtccggg gactggcctc
61 cacgtccgac tcgtccgagc tgaagccag cagcactttg ctgccagccg cggggggcgc
121 ggaggcgccc ccgggccctc ccaggaggct ctctgggcca gaggccgaga ttcggcacag


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181 gccccagga gtcgtaagt aggagaggtc gcccagagacc ggccggagccc ccatccccgc
241 ggccgcccgc gccgctggtc ccgcggtgc gaccgtggcg gctgccgctg gaaaaatgtct
301 caggagaggg ccacgttcta ccggcaggag ctgaacaaga caatctggga ggtgcccgag
361 cgttaccaga acctgtctcc agtgggctct ggccctatg gctctgtgtg tgcgtctttt
421 gacacaaaaa cggggttacg tgtggcagtg aagaagctct ccagaccatt tcagtccatc
481 attcatgcga aaagaacctc cagagaactg cggttactta aacatatgaa acatgaaaat
541 gtgattgtgt tgttgacgt ttttacacct gcaaggtctc tggaggaatt caatgatgtg
601 tatctgttga cccatctcat gggggcagat ctgaacaaca ttgtgaaatg tcagaagctt
661 acagatgacc atgttcagtt ccttatctac caaattctcc gaggtctaaa gtatatacat
721 tcagctgaca taattcacag ggacctaaaa cctagtaatc tagctgtgaa tgaagactgt
781 gagctgaaga ttctggattt tggactggct cggcacacag atgatgaaat gacaggctac
841 gtggccacta ggtgttacag ggctcctgag atcatgctga actggatgca ttacaaccag
901 acagttgata tttgtcagtg gggatgcata atggccgagc tgttgactgg aagaacattg
961 tttcctggta cagaccatat tgatcagttg aagctcattt taagactcgt tggaaaccca
1021 ggggctgagc ttttgaagaa aatctcctca gactctgcaa gaaactatat tcagtctttg
1081 actcagatgc cgaagatgaa ctttgcgaat gtatttattg gtgccaatcc cctggctgtc
1141 gacttgctgg agaagatgct tgtattggac tcagataaga gaattacagc ggccaagcc
1201 cttgcacatg cctactttgc tcagtaccac gatcctgatg atgaaccagt ggccgatcct
1261 tatgatcagt cctttgaaag caggacctc cttatagatg agtggaagag cctgacctat
1321 gatgaagtca tcagctttgt gccaccaccc cttgaccaag aagagatgga gtccctgagca
1381 cctggtttct gttctgttga tcccacttca ctgtgagggg aaggcctttt caggggaact
1441 ctccaaatat tattcaagt cctcttgttg cagagatttc ctccatgggt gaaggggggtg
1501 tgcgtgctgt tgcgtgctgt ttagtgtgtg tgcattgtg

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(2) INFORMATION FOR SEQ ID NO:2679:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1550 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2679

```

1 tggttaacgc cagggttttc ccagtcacga acgttgtaaa acgacggcca gtgccaagct
61 aaaattaacc ttactaaag ggaataagct tgcggccgct tcgggtttcc ggagggggcg
121 gagggcgggc gagggcgtea cgtgcgcgcc gccgcgggc cggttggtcc ccggcggggg
181 gagggggcgt ggcagccctg ggtcggggtc gggccggggt cggcaccttg gacatccctg
241 aggggaaggc cgggagcggg agcgccccag cggccggcgg gcggggcggg gagcggacga
301 gcggcgcgga gccggcccca ggcgcgcgcc gagggagccc cgtccccggt cgtgggggca
361 ccgcccgcag gctctgcggg gtgggcagct cccgggcctg ccatgagctc tccgcccgcc
421 gccgcagtg gcttttaccg ccaggaggtg accaagacgg cctgggaggt gcgcgcgctg
481 taccgggacc tgcagccggt gggctcgggc gcctacggcg cgggtgtgctc ggccgtggac
541 ggcgcgaccg gcgctaaggt ggccatcaag aagctgtatc ggcccttcca gtccgagctg
601 ttgcgcaagc gcgcctaccg cgagctgcgc ctgctcaagc acatgcgcca cgagaacgtg
661 atcgggctgc tggacgtatt cactcctgat gagaccctgg atgacttcac ggacttttac
721 ctggtgatgc cgttcatggg caccgacctg ggcaagctca tgaaacatga gaagctaggc
781 gaggaccgga tccagttcct cgtgtaccag atgctgaagg ggctgaggtg tatccacgct
841 gccggcatca tccacagaga cctgaagccc ggcaaccttg ctgtgaacga agactgtgag
901 ctgaagatcc tggacttcgg cctggccagg caggcagaca gtgagatgac tgggtacgtg
961 gtgaccgggt ggtaccgggc tcccaggttc atcttgaatt ggatgcgcta cagcagacg
1021 gtggacatct ggtccgtggg ctgcatcatg gcggagatga tcacaggcaa gacgtgttc
1081 aagggcagcg accacctgga ccagctgaag gagatcatga aggtgacggg gacgcctccg
1141 gctgagtttg tgcagcggct gcagagcgat gaggccaaga acaacatgaa gggcctcccc
1201 gaattggaga agaaggattt tgccctctatc ctgaccaatg caagccctct ggctgtgaac
1261 ctctgggaga agatgctggt gctggacgcy gagcagcggg tgacggcagg cgaggcgtg
1321 gccatccct acttcagatc cctgcacgac acggaagatg agccccaggt ccagaagtat
1381 gatgactcct ttgacgacgt tgaccgcaca ctggatgaat ggaagcgtgt tacttcaaaa
1441 gaggtgctca gttcaagcc tcccggcag ctgggggcca ggtctccaa ggagacgct
1501 ctgtgaagat ctctgggctc cgggttgcca gtgaggacca ccttcacctt

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(2) INFORMATION FOR SEQ ID NO:2680:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3089 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2680

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1 ggaattccgg gcccggtctt tcctcccgcc gccgcgggcc tgggtccggg gactggcctc
61 cacgtccgac tcgtccgagc tgaagcccag cagcactttg ctgccagccg cgggggaggc
121 ggaggcgccc ccggggccctc ccaggaggct ctctgggcca gaggccgaga ttcggcacag
181 gccccccagga gtccgtaagt aggagagggt gcccgagacc ggccggaccc ccatccccgc
241 ggccgcggcc gccgctggtc ccgcgggtgc gaccgtggcg gctgccgctg gaaaatgtct
301 caggagaggc ccacgttcta ccggcaggag ctgaacaaga caatctggga ggtgcccgag
361 cgttaccaga acctgtctcc agtgggctct ggccgctatg gctctgtgtg tgctgtttt
421 gacacaaaaa cgggggttac gtgtgcagtg aagaagctct ccagaccatt tcagtccatc
481 attcatgcga aaagaacctg cagagaactg cggttactta aacatatgaa acatgaaaat
541 gtgattggtc tgttggacgt ttttacacct gcaaggtctc tggagggaat caatgatgtg
601 tatctggtga cccatctcat gggggcagat ctgaacaaca ttgtgaaatg tcagaagctt
661 acagatgacc atgttcagtt ccttatctac caaattctcc gaaggtctaaa gtatatacat
721 tcagctgaca taattcacag ggacctaaaa cctagtaatc tagctgtgaa tgaagactgt
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961 tttcctggta cagaccatat tgatcagttg aagctcattt taagactcgt tggaaaccca
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1081 actcagatgc cgaagatgaa ctttgccaat gtattttatt gtgccaatcc cctggctgtc
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1381 cctggtttct gttctgttga tcccacttca ctgtgagggg aaggcctttt cacgggaact
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1501 tgcgtgctg tgcgtgctg ttagtgtgtg tgcattgtgt

1 tggttaacgc cagggttttc ccagtcacga acgttgtaaa acgacggcca gtgccaagct
61 aaaattaacc ttactaaaag ggaataagct tgcggccgct tcgggtttcc ggagggggcg
121 gagggcgggc gagggcgctc cgtgcgcgcc gccgcggggc cggttggtcc ccgggcgggg
181 gaggggcccgt gcgcagcctg ggtcggggtc ggcccggggt cggcacctgg gacatccctg
241 aggggaaggc cgggagcggt agcgccccag cggccggcgg gcgggcgggc gagcggacga
301 gcggcgcgga gccggcccga ggcgcgcgcc gagggagccc cgtccccggt cgtgggggca
361 ccgcccgcag gctctgcggg gtgggcagct cccgggcctg ccatgagctc tccgccgcc
421 gccgcagtg gcttttaccg ccaggagggt accaagacgg cctgggaggt gcgcgcgtg
481 taccgggacc tgcagcccgt gggtcgggc gcctacggcg cgtgtgtctc ggccgtggac
541 ggccgcaccg gcgctaaggt ggccatcaag aagctgtatc ggcccttcca gtccgagctg
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841 gccggcatca tccacagaga cctgaagccc ggcaacctgg ctgtgaacga agactgtgag
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1021 gtggacatct ggtccgtggg ctgcatcatg gcggagatga tcacaggcaa gacgtgttc
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1141 gctgagtttg tgcagcggtc gcagagcgat gagggcaaga acaacatgaa gggcctcccc
1201 gaattggaga agaaggattt tgcctctatc ctgaccaatg caagccctct ggctgtgaac
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1381 gatgactcct ttgacgacgt tgaccgcaca ctggatgaat ggaagcgtgt tacttacaaa
1441 gaggtgctca gcttcaagcc tcccggcag ctgggggcca ggtctccaa ggagacgcct
1501 ctgtgaagat ctctgggctc cggggtggca gtgaggacca ccttcacctt

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(2) INFORMATION FOR SEQ ID NO:2681:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2681

```

1  ctcgatcaaaa cctttttttt atggtacaca atagtcacag tactttttcca tataaaacag
61  gtttagtggtt ctttaatttag tttggcacat ttaatacact cccatgacca gcatcccaaa
121 tgtacctatc cgtttttattt tattgtctca gaattgtcag ttattttaata aattatgtaa
181 ctttttttctt tatgctcaga tttgcacttc tttctaaaac tctgcccata cttaaagtcc
241 cagattctcc ttgaactttt ttttttgact ttccaagtac atggaactct tcaactctatc
301 ctgctatata aggtgacaga atttccacta tgggtagatg ggagttcaat tcctttgagt
361 ttaaaataat ctaaatataa ttattcctta tgccctggtt tccctcactt tttgtatcca
421 aatctctttt cagacaacag aacaattaat gtctgataag gaagacaatg atgatgatca
481 cttcaaaatg aattcaggat tgtaatgtaa aatttttagta ctctctcaca gtatggattc
541 taacatggct tctaacccaa actaacatta gtagctctaa ctataaactt caaatttcag
601 tagatgcaac ctactccttt aaaatgaaac agaagattga aattatttaa ttatcaaaaa
661 gaaaatgac cagctcttta gttgaaattt catgtaagat tccatgcaat aaataggagt
721 gccataaatg gaatgatgaa atatgactag aggaggagaa aggcctcctag atgagatggg
781 attttaggca tccgtgtctc atgaggaatc agttgtgtca ctaggcaaaa cagtaaaaaa
841 aaaaacctcc aagtgtgtct cttattttatt tttttcttat aagacttcta caaattgagg
901 tacctgggtg agtttttattt cagggttttat gctgtcattt tcctgtaatg ctaaggactt
961 aggacataac tgaatttttct attttccact tcttttctgg tgtgtgtgta tatatatg
1021 tatatatata cacacacata tacatatata tatttttttag tatctcacc tcacatgctc
1081 ctccctgagc actacccatg atagatgtta aacaaaagca aagatgaaat tccaactgtc
1141 aaaatcccc ctccatctaa ttaatccctc acccaactat gttccaaaac gagaatagaa
1201 aattagcccc aataagccca ggcaactgaa aagtaaatgc tatgttgtac tttgatccat
1261 ggtcacaaat cataatcttg gaaaagtggg cagaaaagac aaaagagtga actttaaaac
1321 tcgaattttat tttaccagta tctcctatga agggctagta accaaaataa tccacgcac
1381 agggagagaa atgccttaag gcatacgttt tggacattta gcgtccctgc aaattctggc
1441 catcgccgct tcctttgtcc atcagaaggc aggaaacttt atattgggtg cccgtggagc
1501 tcacattaac tattttacag gtaactgctt aggaccagta ttatgaggag aatttacctt
1561 tcccgcctct ctttccaaga aacaaggagg ggggtgaagg acggagaaca gtatttctt
1621 tgttgaaagc aacttagcta caaagataaa ttacagctat gtacactgaa ggtagctatt
1681 tcattccaca aaataagagt tttttaaaaa gctatgtatg tatgtgctgc atatagagca
1741 gatatacagc ctattaagcg tcgtcactaa aacataaaac atgtcagcct ttcttaacct
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1861 cacggcgggc gcggcgggag aggggattcc ctgcggcccc ggacctcag gccgctcaga
1921 ttcttgaga ggaagccaa gtccttctg cctcccccg gtatcccatc caaggcgatc
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2221 ggagggaata atttggtggg ggtacgaaaa ggcgggaaag aacagtcatt tcgtcacatg
2281 ggcttggttt tcagtcttat aaaaaggag gttctctcgg ttacgacca attgtcatc
2341 gacttgacgt gagcgtcagg agcacgtcca ggaactcctc agcagcgctt ccttcagctc

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(2) INFORMATION FOR SEQ ID NO:2682:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3387 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2682

```

1  gtccaggaaac tcctcagcag cgctctcttc agctccacag ccagacgccc tcagacagca
61  aagcctaccc ccgcgcgcgc cctgcccgc cgctgcgatg ctgcgccgcg cctgtctgct
121 gtgcgcggtc ctggcgctca gccatacagc aaatccttgc tgttcccacc catgtcaaaa
181 ccgaggtgta tgtatgagtg tgggatttga ccagtataag tgcgattgta cccggacagg
241 attctatgga gaaaactgct caacaccgga atttttgaca agaataaaat tatttctgaa
301 acccactcca aacacagtgc actacatact taccacttcc aagggatttt ggaacgttgt
361 gaataacatt ccttctcttc gaaatgcaat tatgagttat gtgttgacat ccagatcaca
421 tttgattgac agtccaccaa cttacaatgc tgactatggc tacaaaagct gggaagcctt
481 ctctaaccct tcctattata ctagagccct tcctcctgtg cctgatgatt gcccgactcc
541 cttgggtgtc aaaggtaaaa agcagcttcc tgattcaaat gagattgtgg gaaaattgct
601 tctaagaaga aagttcatcc ctgatcccca gggctcaaac atgatgtttg cattctttgc
661 ccagcacttc acgcatcagt ttttcaagac agatcataag cgagggccag ctttcaccaa
721 cgggctgggc catggggtgg acttaaatca tatttaccgt gaaactctgg ctagacagcg
781 taaactgcgc cttttcaagg atggaaaaat gaaatatcag ataattgatg gagagatgta

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841 tcctcccaca gtcaaagata ctccaggcaga gatgatctac cctcctcaag tccctgagca
901 tctacgggtt gctgtggggc aggagggtctt tggctctggtg cctgggtctga tgatgtatgc
961 cacaatctgg ctgagggaac acaacagagt atgcgatgtg cttaaacagg agcatcctga
1021 atgggggtgat gagcagttgt tccagacaag caggctaata ctgataggag agactattaa
1081 gattgtgatt gaagattatg tgcaaacctt gagggtgat cacttcaaac tgaatttga
1141 cccagaacta cttttcaaca aacaattcca gtacaaaat cgtattgctg ctgaatttaa
1201 caccctctat cactggcatc cccttctgcc tgacaccttt caaattcatg accagaaata
1261 caactatcaa cagtttatct acaacaactc tatattgctg gaacatggaa ttaccagtt
1321 tgttgatca ttcaccaggc aaattgctgg cagggttgc ggtggttagga atgtccacc
1381 cgcagtacag aaagtatcac aggttccat tgaccagagc aggcagatga aataccagtc
1441 ttttaagtga taccgcaaac gctttatgct gaagccctat gaatcatttg aagaacttac
1501 aggagaaaag gaaatgtctg cagagttgga agcactctat ggtgacatcg atgtgtgga
1561 gctgtatcct gcccttctgg tagaaaagcc tcggccagat gccatctttg gtgaaaccat
1621 ggtagaagtt ggagcaccat tctccttgaa aggacttatg ggtaattgta tatgttctcc
1681 tgcctactgg aagccaagca cttttggtgg agaagtgggt tttcaaatca tcaacactgc
1741 ctcaattcag tctctcatct gcaataacgt gaagggtctg ccctttactt cattcagttg
1801 tccagatcca gagctcatta aaacagtcac catcaatgca agttcttccc gctcggact
1861 agatgatata aatcccacag tactactaaa agaactgtcg actgaactgt agaagtctaa
1921 tgatcatatt tatttattta tatgaaccat gtctattaat ttaattattt aataatattt
1981 atattaaact ccttatgtta cttaacatct tctgtaacag aagtcagtac tccgtgtgcg
2041 gagaaaggag tcatacttgt gaagactttt atgtcactac tctaaagatt ttgctgttgc
2101 tgttaagttt ggaaaacagt ttttattctg ttttataaac cagagagaaa tgagttttga
2161 cgtcttttta cttgaatttc aacttatatt ataaggacga aagtaaagat gtttgaatac
2221 ttaaacacta tcacaagatg ccaaaatgct gaaagttttt acactgtcga tgtttccaat
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2701 tgggtggagcc actgcagtgt tatctcaaaa taagaatata ctgttgagat attccagaat
2761 ctgtttatat ggctggtaac atgtaaaaac ccataaacc cgccaaaagg ggtcctaccc
2821 ttgaacataa agcaataacc aaaggagaaa agcccaaatt attggttcca aatttaggg
2881 ttaaaccttt tgaaagcaaac ttttttttag cctgtgacac tgcagacctg gtactcagat
2941 tttgctatga ggtaaatgaa gtaccaagct gtgcttgaat aacgatatgt tttctcagat
3001 tttctgttgt acagtttaat ttagcagtc atatcacatt gcaaaaagtag caatgcactc
3061 ataaaatacc tcttcaaaat gcttaaatc atttcacaca ttaattttat ctactcttg
3121 aagccaattc agtaggtgca ttggaatcaa gcctggctac ctgcatgctg ttccttttct
3181 tttcttcttt tagccatttt gctaagagac acagtcttct caaacacttc gtttctcta
3241 tttgttttta ctagttttaa gatcagagtt cactttcttt ggactctgcc tatattttct
3301 tacctgaact ttgcaagtt ttcaggtaaa cctcagctca ggactgctat ttactctctc
3361 ttaagaagat taaaaaaaaa aaaaaag

(2) INFORMATION FOR SEQ ID NO:2683:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9453 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2683

1 gagctcacat taactattta cagggttaact gcttaggacc agtattatga ggagaattta
61 cctttccgc ctctctttcc aagaacaag gaggggtga aggtacggag aacagtattt
121 cttctgttga aagcaactta gctacaaaga taaattacag ctatgtacac tgaaggtagc
181 tatttcattc cacaaaataa gagtttttta aaaagctatg tatgtatgtg ctgcataatg
241 agcagatata cagcctatta agcgtcgtca ctaaaacata aaacatgtca gcctttctta
301 accttactcg cccagctctg tcccgacgtg acttctctga ccctctaaag acgtacagac
361 cagacacggc ggccggcgcg ggagagggga tccctgcgc ccccgacct caggccgct
421 cagattcctg gagaggaagc caagtgtcct tctgcccctc cccggtatcc catccaaggc
481 gatcagtcga gaactggctc tcggaagcgc tcgggcaaag actgcgaaga agaaaagaca
541 tctggcgga acctgtgcgc ctggggcggt ggaactcggg gaggagaggg agggatcaga
601 caggagagtg gggactaccc cctctgctcc caaattgggg cagcttctg ggtttccgat

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661 tttctcattt ccgtgggtaa aaaaccctgc cccaccggg cttacgcaat ttttttaagg
721 ggagaggagg gaaaaaattt gtgggggggt acgaaaaggc ggaaagaaac agtcattcac
781 atgggcttgg ttttcagtct tataaaaagg aaggttctct cggttagcga ccaattgtca
841 tacgacttgc agtgagcgtc aggagcacgt ccaggaaact ctcagcagcg cctccttcag
901 ctccacagcc agacgcccctc agacagcaaa gectaccccc gcgcgcgcgc ctgcccgcgc
961 ctcgatgctc cgccgcgcgc ctgctgctgt gcgcggtcct ggcgctcagc catacaggtg
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1081 tgacctcctg ggtctatccc agtactccga cttctctccg aatagagaag ctacgtgact
1141 tgggaaagag cttggaccgc tagagtccga aagaactccg tggatattcc agctttccca
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1261 tagggataga tgatactaatt ttgcaggttg tcattatgat aagacaggat ctgatcaata
1321 tatgtgaatt gtttataatt ggaacctttt tattgagtg ggaagttgt tttaaatatt
1381 ctagtcaagt ctttctctgt cccaggaaaag cccggattat gttttaagat aagcaaatg
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2401 tacctcttct aacctttact gtttggtcag tttgtggagg tagcatggtc cagctgttta
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2581 ttcccttctc aggcctcttg gatagtgaac agatggctac ctgaaaaatc aatattgcca
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2761 gtgccacttt ccacatttta caataaaaaa aatggttgat ttacttaaca aatgagataa
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4321 tttttctatc attttctagg tggacttaaa tcatatttac ggtgaaactc tggctagaca

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4381 gcgtaaacgt cgccttttca aggatggaaa aatgaaatat caggatatgt tcctttgact
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8701 tataaactgt gtttaagcct acaatcattg attttttttt gttatgtcac aatcagtata
8761 ttttctttgg ggttacctct ctgaatatta tgtaaacat ccaaagaaat gattgtatta
8821 agatttgtga ataaattttt agaaatctga ttggcatatt gagatattta aggttgaatg
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9061 taaatcaaac gctgattaca gataatagta tttatataaa taattgaaaa aaattttctt
9121 ttgggaagag ggagaaaatg aaataaatat cattaaagat aactcaggag aatcttcttt
9181 acaattttac gtttagaatg ttttaggtta agaagaaat agtcaatatg cttgtataaa
9241 acactgttca ctgttttttt taaaaaaaaa acttgatttg ttattaacat tgatctgctg
9301 acaaaacctg ggaatttggg ttgtgtatgc gaatgtttca gtgectcaga caaatgtgta
9361 ttttaacttat gtaaaaagata agtctgaaa taaatgtctg tttatttttg tactatttaa
9421 aaaaaaaaaa aaaaatcgat gtcgactcga gtc

(2) INFORMATION FOR SEQ ID NO:2684:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15240 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2684

1 ctcgatcaaa cctttttttt atgggtacaca atagtcacag tactttttcca tataaaacag
61 gtttagtggt cttaattttag ttgtgcacat ttaatacact cccatgacca gcatcccaaa
121 tgtacctatc cgtttttattt tattgtctca gaattgtcag ttatttaata aattatgtaa
181 cttttttcct tatgtctcaga ttgtcacttc tttctaaaac tctgcccac cttaaagtcc
241 cagattctcc ttgaactttt ttttttgact ttccaagtac atggaactct tcaactctatc
301 ctgctatata aggtgacaga atttccacta tgggatagat ggagttcaat tcttttgagt
361 ttaaaaaaat ctaaaataaa ttattcctta tgccctgttt tccctcact tttgtatcca
421 aatctctttt cagacaacag aacaattaat gtcgtataag gaagacaatg atgatgtaca
481 cttcaaaatg aattcaggat tgtaattgtaa aatttttagta ctctctcaca gtatggattc
541 taacatggct tctaacccaa actaacatta gttagctctaa ctataaactt caaatttcag
601 tagatgcaac ctactccttt aaaatgaaac agaagattga aattattaaa ttatcaaaaa
661 gaaaatgatc cagcgtctta gttgaaattt catgtaagat tccatgcaat aaataggagt
721 gccataaatg gaatgatgaa atatgactag aggaggagaa aggcctcctag atgagatggg
781 attttaggca tccgtgtctc atgaggaatc agttgtgtca ctaggcaaaa cagtaaaaaa
841 aaaaacctcc aagtgagtct cttattttatt tttttcttat aagacttcta caaattgagg
901 tacctgggtgt agttttattt caggttttat gctgtcattt tccgtgaatg ctaaggactt
961 aggacataac tgaattttct attttccact tcttttctgg tgtgtgtgta tatatatatg
1021 tatatatata cacacacata tacatatata tatttttttag tatctcacc cccacatgctc
1081 ctccctgagc actaccccatg atagatgtta aacaaaagca aagatgaaat tccaactgtc
1141 aaaatcccc ctccatctaa ttaatccctc acccaactat gttccaaaac gagaatagaa
1201 aattagcccc aataagcccc ggcaactgaa aagtaaatgc tatgttgtac tttgatccat
1261 ggtcacaact cataatcttg gaaaagtggg cagaaaagac aaaagagtga actttaaaaa
1321 tcgaatttat tttaccagta tctcctatga agggctagta accaaaataa tccacgcatc
1381 agggagagaa atgccttaag gcatacgttt tggacattta gcgtccctgc aaattctggc
1441 catcgccgct tctttgtcc atcagaaggc aggaacttt atattgggtga cccgtggagc
1501 tcacattaac tatttacagg gtaactgctt aggaccagta ttatgaggag aatttacctt
1561 tcccgcctct ctttccaaga aacaaggagg gggatgaagt acggagaaca gtattttctc
1621 tgttgaaagc aacttagcta caaagataaa ttacagctat gtacactgaa ggtagctatt
1681 tcattccaca aaataagagt tttttaaaaa gctatgtatg tatgtgtctc atatatagca
1741 gatatacagc ctattaagcg tcgtcactaa aacataaaac atgtcagcct ttcttaacct
1801 tactcgcccc agtctgtccc gacgtgactt cctcgaccct ctaagagcgt acagaccaga

(Musical notation for the first system)

7201 tgtttgaata cttaaacact atcacaagat ggcaaaatgc tgaaagtttt tacactgtcg
7261 atgtttccaa tgcattctcc atgatgcatt agaagtaact aatgtttgaa attttaaagt
7321 acttttggtt atttttctgt catcaaacia aaacaggat cagtgcatta ttaaatgaat
7381 attttaaatta gacattacca gtaatttcat gtctactttt taaaatcagc aatgaaacaa
7441 taatttgaaa tttctaaatt catagggtag aatcacctgt aaaagcttgt ttgatttctt
7501 aaagttatta aacttgtaca tataccaaaa agaagctgtc ttggatttaa atctgtaaaa
7561 tcagatgaaa ttttactaca attgcttgtt aaaatatatt ataagtgatg ttcctttttc
7621 accaagagta taaacctttt tagtgtgact gttaaaactt ccttttaaat caaaatgcc
7681 aatttattaa ggtggtggag ccactgcagt gttatctcaa aataagaata tttgttgag
7741 atattccaga atttgtttat atggctggtg acatgtaaaa tctatatcag caaaagggtc
7801 taccttttaa ataagcaata acaaagaaga aaaccaaatt attgttcaaa tttaggttta
7861 aacttttgaa gcaaaccttt ttttatcctt gtgcactgca ggctggtac tcagattttg
7921 ctatgaggtt aatgaagtac caagctgtgc ttgaataacg atatgttttc tcagattttc
7981 tgtgtacag ttttaattag cagtccatat cacattgcaa aagtagcaat gacctcataa
8041 aatacctctt caaaatgctt aaattcattt cacacattaa ttttatctca gtcttgaagc
8101 caattcagta ggtgcattgg aatcaagcct ggctacctgc atgtgttcc tttcttttc
8161 ttcttttagc cattttgcta agagacacag tcttctcctc acttcgtttc tctattttg
8221 ttttactagt ttttaagatca gaggttcact tctttggact ctgcctatat tttcttacct
8281 gaacttttgc aagttttcag gtaaacctca gctcaggact gctatttagc tctctttaag
8341 aagattaaaa gagaaaaaaa aaggcccttt taaaaatagt atacacttat ttttaagtga
8401 aagcagagaa ttttatttat agctaatttt agctatctgt aaccaagatg gatgcaaaaga
8461 ggctagtgcc tcagagagaa ctgtacgggg tttgtgactg gaaaaagtta cgttccatt
8521 ctaattaatg ccttttctta tttaaaaaca aaaccaaag atatactaagt agttctcagc
8581 aataataata atgacgataa tacttctttt ccacatctca ttgtcactga catttaatgg
8641 tactgtatat tacttaattt attgaagatt attatttatg tcttattagg acactatggt
8701 tataaactgt gtttaagcct acaatcattg atttttttt gttatgtcac aatcagtata
8761 ttttctttgg ggttacctct ctgaatatta tgtaaaacaa ccaaagaaat gattgtatta
8821 agattttgta ataaattttt agaaatctga ttggcatatt gagatattta aggttgaatg
8881 tttgtcctta ggataggcct atgtgctagc ccacaaagaa tattgtctca ttagcctgaa
8941 tgtgccataa gactgacctt ttaaaatggt ttgagggatc tgtggatgct tcgttaattt
9001 gttcagccac aattttattga gaaaatatte tgtgtcaagc actgtgggtt ttaatatatt
9061 taaatcaaac gctgattaca gataatagta tttatataaa taattgaaaa aaattttctt
9121 ttgggaagag ggagaaaatg aaataaatat cattaaagat aactcaggag aatcttcttt
9181 acaattttac gtttagaatg ttttaagggtta agaaagaaat agtcaaatatg cttgtataaa
9241 acactgttca ctgttttttt taaaaaaaaa acttgatttg ttattaacat tgatctgctg
9301 acaaaacctg ggaatttggg ttgtgtatgc gaatgtttca gtgcctcaga caaatgtgta
9361 ttttaacttat gtaaaagata agtctggaaa taaatgtctg tttatttttg tactatttaa
9421 aaaaaaaaaa aaaaatcgat gtcgactcga gtc

(2) INFORMATION FOR SEQ ID NO:2685:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 865 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2685

1 gaattccgga gttccgggcy cgcgcgacgt cagtttgagt tctgtgttct ccccgcccg
61 gtcccgcccg acccgcgccc gcgatgctgg cgctgcgctg cggtcccgcc tggctcgcc
121 tgctctccgt cccgcgctcc gtgcgctgc gcctcccgcc ggcccgcgcc tgcagcaagg
181 gctccggcga cccgtcctct tctctcctct ccgggaaccc gctcgtgtac ctggacgtgg
241 acgccaacgg gaagccgctc ggccgctgg tgctggagct gaagcgagat gtcgtcccaa
301 agacagctga gaacttcaga gccctgtgca ctggtgagaa gggcttcggc tacaaggct
361 ccaccttcca cagggtgatc ccttcttca tgtgccagge gggcgacttc accaaccaca
421 atggcacagg cggaaggtcc atctacggaa gccgtttcc tgacgagaaac tttactactga
481 agcacgtggg gccaggtgtc ctgtccatgg ctaatgctgg tcttaacacc aacggctccc
541 agttcttcat ctgcaccata aagacagact ggttggatgg caagcatggt gtgttcggtc
601 acgtcaaaaga gggcatggac gtcgtgaaga aatagaatc tttcggtct aagagtggga
661 ggacatccaa gaagattgtc atcacagact gtggccagtt gagctaact gtggccaggg
721 tgctggcatg gtggcagctg caaatgtcca tgcacccagg tggccgctt gggctgtcag
781 ccaagtgcc tgaacgata cgtgtgcccc ctccactgtc acagtgtgcc tgagggaaggc
841 tgctagggat gtttagcgga attcc

(2) INFORMATION FOR SEQ ID NO:2686:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 49 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2686

1 ttttgcagac gccaccgccg aggaaaaccg tgtactatta gccatggtc

(2) INFORMATION FOR SEQ ID NO:2687:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 851 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2687

1 cgaggacgca acatgaaggt gctccttgcc gccgccctca tcgcggggtc cgtcttcttc
61 ctgtctgtgc cgggaccttc tgccggccgat gagaagaaga agggggccaa agtcaccgtc
121 aaggtgtatt ttgacctacg aattggagat gaagatgtag gccgggtgat ctttggtctc
181 ttcggaaaaga ctgttccaaa aacagtggat aattttgtgg ccttagctac aggagagaaa
241 ggatttggct acaaaaacag caaatccat cgtgtaatca aggacttcac gatccagggc
301 ggagacttca ccaggggaga tggcacagga ggaaagagca tctacggtga gcgcttcccc
361 gatgagaact tcaaaactgaa gcaactcggg cctggctggg tcagcatggc caacgcaggc
421 aaagacacca acggctoccca gttcttcac acgacagtca agacagcctg gctagatggc
481 aagcatgtgg tgtttggcaa agttctagag ggcatggagg tgggtcgga ggtggagagc
541 accaagacag acagccggga taaaccctg aaggatgtga tcatcgaga ctgcggcaag
601 atcgagggtg agaagccctt tgccatcgcc aaggagtagg gcacagggac atctttcttt
661 gagtgaccgt ctgtgcaggc cctgtagtcc gccacagggc tctgagctgc actggccccg
721 gtgtggcat ctgttgaggc ggacccactc ccctcacatt ccacaggccc atggactcac
781 ttttgaaca aactcctacc aacactgacc aataaaaaaa aatgtgggtt tttttttttt
841 ttaataaaaa a

(2) INFORMATION FOR SEQ ID NO:2688:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 833 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2688

1 gaaggtgctc cttgccgccg ccctcatcgc ggggtccgtc ttcttctctg tgctgccggg
61 accttctgcg gccgatgaga agaagaaggg gcccaaagtc accgtcaagg tgtattttga
121 cctacgaatt ggagatgaag atgtaggccg ggtgatcttt ggtctctttg gaaagactgt
181 tccaaaaaca gtggataatt ttgtggcctt agctacagga gagaaaggat ttggctacaa
241 aaacagcaaa ttccatcgtg taatcaagga ctcatgatc cagggcggag acttcaccag
301 gggagatggc acaggaggaa agagcatcta cggtagcgcc ttccccgatg agaacttcaa
361 actgaagcac tacgggcctg gctgggtgag catggccaac gcaggcaag acaccaacgg
421 ctcccagttc ttcatcacga cagtcaagac agcctggcta gatggcaagc atgtggtggt
481 tggcaaagtt ctgaggggca tggaggtggt gcggaagggt gagagcacca agacagacag
541 ccgggataaa cccctgaagg atgtgatcat cgcagactgc ggcaagatcg aggtggagaa
601 gccctttgcc atcgccaagg agtagggcac agggacatct ttctttgagt gaccgtctgt
661 gcaggccctg tagtccgcca cagggtctct agctgactg gccccggtgc tggcatctgg
721 tggagcggac ccactcccct cacattccac aggccatgg actcactttt gtaacaaact
781 cctaccaaca ctgaccaata aaaaaaatg tgggtttttt tttttaataa aag

(2) INFORMATION FOR SEQ ID NO:2689:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6711 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2689

1 gaattccctt gtaaggtttt cttaacaaaa caccagtcac ataagtgcac tttattttat
61 atttttgttt atttatttga gacggagtct cttgtctctc aggttgaggt gcagtggcgc

121 catctctgct cgctgcaacc tccacctcct gggttccagc gatttctcctg cctcagcctc
 181 ccgagggggg agctgggact acaggtgcgc accaccatgc ccagctaatt ttgtattttt
 241 cgtagagatg ggggttcacc atgttgcca ggctggctct gaactcctga cctcaggtga
 301 tcttcccgcc tgggctccc aaagtgcctg aattacaggc gtgatccacc gcacccggcc
 361 tattttttga gagagggta cactctgtcg tcccggctgg aatgcagtga tgcgatcacc
 421 gcccactaca gcctcgacct ccgggctcaa gcaatcctcc ccgcccagcc tcctgagtag
 481 cgagcgctc gacgcccagc taatttttat ttttatttat tttttgtag agacggcgtc
 541 tctctaagat gcccaggtcg gtggccgggtg tcgaactcct aagatgaagc gatcctcccc
 601 ggccttggcc tccgcgcctc cttaaagcgc aggtatgagc caccgcgcct ggctacaag
 661 tgcattttta ttaaagtatt attaatgtct ttgcctgaag aaattcgctt ttaaattgtg
 721 acttatcttt caccacaaaa tcaaagcaca attcagcccc gaggcggggg cggtaggagc
 781 tgggcggggc gggggcaggg aaagaccagg agcagagatt caaaaagagt aagagggcaa
 841 aatgtgcata atgcattctc acaggtaga gcctggccag gctcctgttt taatggcttc
 901 ctctgaaga agattcaagc agagtgaag atattttcgg aaagtagagc attttgaaag
 961 catttcataa tctctcaaaa ccggagactg ctctgtccc acctcgtag agaaaacagc
 1021 gatgctcaaa ggcaacctcc ttctgacat tgcttgtag gacgcgacgt ggtgtttgcc
 1081 cgcgcggaat gcggacgcaa ggctgctcct aggtctcggg gacgcgccat cccatttcc
 1141 gctcgcggag gcgtagggtc cgggcgcggg accccagtcg accttgactg gcggcgcgac
 1201 cttgaggcct gcgttcgcct cagttgcccc ctctgtgcaa tggggagagc cgcctcatcg
 1261 cttgacaacg gccgaagagc cgcgcgcgtt ccgtctcccg cgtgcgcgag ccatgctgac
 1321 caccctcggt ccgcaactgac cctccccctg gcccgcgctc ccgtactgcc gcccgcgcc
 1381 gactccccat gcgcagccac ccgcagggag ccgcagggc ggaacctgcc tccgcgcgtt
 1441 agcgcgcacg cgcgcctcat gtgtcgtccc catcagcgcc ggcttccgct tataggccag
 1501 atgcactgtc actctggcga agtcgcagac ccgattggcc gggacggagg cgcgagaccg
 1561 ggttgccggc ggggcggaac gtggtataaa acgggcggga ggccaggctc gtgcccgttt
 1621 gcagacgcca ccgcgagga aaaccgtgta ctattagcca tggtaaccc caccgtgttc
 1681 ttgcacattg ccgtcgacgg cgagcccttg ggccgcgtct cctttgaggt cgggcgggag
 1741 gcggcgtgag ggaatggggc ccagaaagtg ggccggggc ggggtgggtg gtacgcccc
 1801 aaagcccgcg gcgcggggcg accctgcttg agggcgagc gcggcgggc tgcgcgccca
 1861 tttctgacg aggggccatt ttgggaggtc cgcgagtcgc gggagggagc cgggacgcgg
 1921 cggacaaaag caggcggggc ggctgcgagg ccgttggggg agggggcccg cgtccgccc
 1981 cccgcctcat gtggcgcgc cctgtcctgt ccgacgcagc tgctcggcgg ccgcgctcag
 2041 gtccgcgctc tgagagtcgt tgcctccct agcttgccct gggcgccgca gaccggagcc
 2101 agaagcacgc tcgcgggggc ttgcgaccgc ctctctggga agctgtcccc tggcaggcat
 2161 ggggtcttta cactctgagc tgggaagctg tttgcttgag ggtttttctc aaggatcgag
 2221 gcgcggtgtg agcccgtcca tgcctggtcc tgtagatccc gggaggccat gttataaaag
 2281 gagacttgct gggatgtgac ggggtgccac ttgaaatata ttccatttgg ataaagttag
 2341 aatatattata catgtgcccc aaacgtccct ccgtgtcccc caccaccaag cggaaatgtg
 2401 aaaaatgggc ttgcctttgc tgggtgccaa ggaccgcctt ccactgcagt gacggcgtg
 2461 gcgggggagc cgctcttgag cccctccga ttgtccctct gcctagcaag caagttgcga
 2521 ctggccacaa tctgagcaca ttccgaccaa ggtggtattc cagtgtattc ctaattagtt
 2581 ttgagagcgt taaatgagtt cttaaagatc agttgtaatt atagcatagt atctaaactt
 2641 ggcgcgtgtc ttcaaagtta aatattgagt acgattccgt tccagttaac atggatagac
 2701 cttaggaggt agcgaatatg gatgttagtg gttttattcc tttaaatcac atctcaaaag
 2761 gccaccaatg gctagtttgg atcttattcc gaaaatagat tgatcctcat gcagctctcg
 2821 tgaggacaga gcgatttcc tttgtccctac cctgtccata gtgcctggca cataggcact
 2881 gaaacactgc atgttaatcc acaccccacc ccacctatga gtgtagtcaa agctggtaag
 2941 tgacaagggc tttcgtggaa acttgccctg acctaatgtt gggcatcagg ttaccacaaag
 3001 agcttcaggg aatgagaaaa ggacttgacg gtcttgatga gaatggaggg gtaactgcc
 3061 atgagggctt tggctttagc gaaagtcctga aaggaagcc ataggaaact aaacgtaccg
 3121 actataaagc tctgagaaaa gctgatgttt tagaaagacc atacattcta ggtacaaata
 3181 cctaaaaact aaaaaataag tacgttggcc aggcgggagg atcacgaagt caggagattg
 3241 agaccatcct gggccctcg tgaaacccca cctctattaa aaatacaaaa attagctggg
 3301 cgtggtggcg cttgcctgta atctcagcta ctctagagcc tgaggcagga gatcgcttga
 3361 accccggagg cggagctgc agtgagccga gatcggtcca ctgcactcca gcctgggtgac
 3421 agcgagactc ttgtctcaaa aaaaaaaaag tacattgcta taagagaagt gcacacggat
 3481 actagtagtt aattcagtc catctgtgaa atagcttata aaatgctact tttaaacaag
 3541 ctgtttttat gaaagggctt gtaaatgttt atgttattta agctacctct ctagccataa
 3601 cgtattatac attcaagaaa ggttcaaaac cagatatact agaaaccaat ctttattttt
 3661 taccocacta ctaggtgaag gcctggatac caagaagtga ctgctcatct aatccataaa
 3721 gctatgttaa cagattggag gtatagcat tttcattaca agtgactaaa agaacagctg
 3781 tttaccctg atcgtgcagc agtgcttgct gttccttaga attttgcctt gtaagtctta

3841 gctcaagttg gggggtggtg atagacattt aagaagccat atatcttttc agaagtaggt
3901 gtgatgtact aaaagtgtga gacactttct agaagtctca ctatttaagt tatgactagt
3961 attggatttt tggcatgtct ttgggtttca tgtttcttaa cccaactgcc tgcagggcct
4021 tatggctgtc aggagcagtt ctgggaatt aaagtaatta ctgaagaagt attctagtga
4081 gaaaatgaat ttatgactca gaagccctta aagacatggg tactaagcaa caaataagc
4141 agatgttaat taactgtaat tttctcttac agctgtttgc agacaaggtc ccaagacag
4201 cagggttggtc cattttctaa gtttaacaaa gatgttccaa ttgtgacagt ttgtgtgtgt
4261 gtgtgtatat atatatttt atgtatgtat atatgtgttt aatttttttt taaacagaaa
4321 attttcgtgc tctgagcact ggagagaaag gatttggtta taagggttcc tgctttcaca
4381 gaattattcc aggggtttatg tgtcaggtag gaaatttact gaattttatt ttatttggtt
4441 tgctcccttc atttgggatt gagccagaat atttcaggat acacatatct gaactgttac
4501 tctaccattt cgggttctatt taacctttct attcagtttg aacttggtt taaagtttga
4561 acctgacaga tttggcacac ttcattggtta tgttgtcaga agtgacattt ttcctatag
4621 ttgacagggt ggtgacttca cagccataaa tggcactggg ggcaagtcca tctatgggga
4681 gaaatttgaa gatgagaact tcactcctaa gcatacgggt cctggcatct tgtccatggc
4741 aaatgctgga cccaacacaa atggttccca gttttctatc tgcactgcca agactgagt
4801 gtaagggtac aacatggcac actaaccacc tgactaaatg aaaagttgcc ctggggggaa
4861 cggaacaaac actacttttc ttcaaccttt gcttccacag actttttcat ccctaagata
4921 ctagaagaag agcatacata aatgacaaat atagccaatg tgatacagaa tgtcagatac
4981 tatgatagaa acctggccct tagctgggtg gttgaattag gtgctacttt ttgagatgg
5041 agttttgtct tgttgccagg ttggagtga gtggcacaat ctgggctcac tgcaacctct
5101 gctcctggg ttcaagcgat tctcctgct tggcctcctg agtagctgag aatacagatg
5161 tgtgccagca tgcctggcta attttttgta tttttgtgga gacggggttt catcatgtt
5221 gccaaagtgg tcttgaactc gtgacttaag gtgaaccacc tgccttggcc ccccaaagt
5281 ctgggatttc aggcattgag cactgcgccc aaccaattaa gtgctttttt ttttttttt
5341 cttttctcag actggatctc gctcttatct cccaggttgg agtgagtggt tgccatctca
5401 gctcactgca acctcctccc ggggttcaagc aattctctct cctcagcctc tcaagtagct
5461 ggaactacga gcatgcacca ccactcccag ctaaattgtg tattattagt agagcgggat
5521 ttaccatggt gtccaggctg gtctcgaact cctgggctca agtgatctgc ctgcttgac
5581 ccccccgaag tgctgggatt acaggcatga gccactgtgc ccaccaatt aagtgtgct
5641 tttatgttac tattaataac atgcggttgg ttgggttttt tgtttctttg ggggttttgt
5701 tttgttttgt ttgttttttg gggagggggg cgcaattcat tctatatgtg taactccttt
5761 ttgagatgga gtttcgctct gtgcgccagg ctggagtga gtggcgcat ctcggctcac
5821 tgcaagctcc gcctcccagg ttcacgcat tctcctgcct cagcctccc agtagctggg
5881 actataggca catgccacca tgcccggcta attttttgta ttttttagtag agacagggtt
5941 tcaccgtggt agccaggatg gtctcgatct cctgacctcg tgatccgccc gccttggcct
6001 cccaaagtgc tgggattaca ggcgtgagcc accgcaccgg gcctatatgt gtaactcctt
6061 aatggtaatt ggagaatcat gtttaatgac atttagtaca aaaggcttca gttaaaaaaa
6121 aaaaaaaaaa gctacctttc tcgtcttggg tcatgacaca tggaggctgc ttgtttgtg
6181 ttgccagtca taatgattgt tcttcctttt caaggttga tggcaagcat gtgggtgttg
6241 gcaaaagtga agaaggcat aatattgtgg aggccatgga gcgctttggg tccaggaatg
6301 gcaagaccga caagaagatc accattgctg actgtggaca actcgaataa gtttgacttg
6361 tgttttatct taaccaccag atcatctctt ctgtagctca ggagagcacc cctccacccc
6421 atttgcctgc agtatcctag aatctttgtg ctctcgtgc agttcccttt gggttccatg
6481 ttttccttgt tccctcccat gcctagctgg attgcagagt taagtttatg attatgaat
6541 aaaaactaaa taacaattgt cctcgtttga gtttaagtgt gatgtaggct ttattttaag
6601 cagtaatggg ttacttctga aacatcactt gtttgcttaa ttctacacag tacttagatt
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(2) INFORMATION FOR SEQ ID NO:2690:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 723 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2690

1 gtgtactatt agccatggc aaccccaccg tgttcttga cattgccgtc gacggcgagc
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121 ttcgtgctct gagcactgga gagaaaggat ttggttataa ggggttctgc ttccacagaa
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241 agtccatcta tggggagaaa tttgaagatg agaacttcat cctaaagcat acgggtcctg
301 gcactctgtc catggcaaat gctggaccca acacaaatgg ttcccagttt ttcactctga

361 ctgccaagac tgagtgggtg gatggcaagc atgtgggtgt tggcaaagtg aaagaaggca
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 481 tcaccattgc tgactgtgga caactcgaat aagtttgact tgtgttttat cttaccacc
 541 agatcattcc ttctgtagct caggagagca cccctccacc ccatttgctc gcagtatcct
 601 agaattcttg tgctctcgct gcagttccct ttgggttcca tgttttcctt gttccctccc
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 721 gtc

(2) INFORMATION FOR SEQ ID NO:2691:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10032 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2691

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 61 gtcccgcccg acccgcgccc gcgatgctgg cgtgcgctg cggtcccgcc tggctcggcc
 121 tgctctccgt cccgcgctcc gtgcgctgc gcctcccgcc ggcccgcgcc tgcagcaagg
 181 gctccggcga cccgtctctt tctctctctt cccggaaccc gctcgtgtac ctggacgtgg
 241 acgccaacgg gaagccgctc ggccgcgctg tgctggagct gaaggcagat gtcgtcccaa
 301 agacagctga gaacttcaga gccctgtgca ctggtgagaa gggcttcggc tacaaggct
 361 caccttcca cagggtgctc cttctcttca tgtgccaggc gggcgacttc accaaccaca
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 601 acgtcaaaga gggcatggac gtcgtgaaga aaatagaatc ttctcgctct aagagtggga
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 781 ccaaggtgcc tgaaacgata cgtgtgcccc ctccactgtc acagtgtgcc tgaggaaaggc
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 1 ttttgacagc gccaccgccc aggaacaccc tgtactatta gccatggtc
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(2) INFORMATION FOR SEQ ID NO:2692:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 56583 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2692

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(2) INFORMATION FOR SEQ ID NO:2693:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1681 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2693

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(2) INFORMATION FOR SEQ ID NO:2694:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 141589 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2694

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139741 tcccaaatgt ctgggattac agcgtgagc caccgcgcc ggcctgcccc caattattta
139801 gtttttctat aaacagggaa atttatttgt gtggccctta gaactaattt aatttccact

139861 ctaattccta cttatgttta tataatgctt ttagaaattt gtattattca gaaaataaac
 139921 atatactatt gtatctgttg cctacactta gattttattg cctgctatat ttaaatttta
 139981 ttagtatttt aattgtttta ttaaagaaag aatgtgcctg taatctcagc acttttgaga
 140041 ggccaaggca gaaggattgc ttgagcccag gagtttgaga ccagactgag caacacaggg
 140101 agacccccat ctctacaaaa aataaaaaaa ttctccaggc ctcatggcac atacctgtag
 140161 ttctagttac ttgggagact ggggtgggag gatgcattga gcccaggaga ttgaggctgc
 140221 agtgagccat gatcaggcca ctgtactcca gcttgacaa cagagtga gcttgtctag
 140281 atagatagat agatagataa tctaaataga taatagacag attatctaaa tagataatag
 140341 acagattatc taaatagata atagacagat tatctaaata gataatagac agattatcta
 140401 aatagataat agacagatta tctaaataga taatagacag attatctatc taaatagata
 140461 atagattatc taaatagata atagatagat agattagata gatagataga tagatagagc
 140521 ttggacaaca gagtgagagc ctgtctagat agatagaaac aaagaaagaa agaagaatg
 140581 gtgctcatat tttaaagcat tgaaaaatgg tcttcttgc ttatattacc cacaccttct
 140641 ttgttggcat taagatgcaa actttgtttt aaacagttga gtaaatacaa gatgggactg
 140701 ttaagttatt tgtgtttatt acctgtttt tgaaaatgta aaaataaaac tctaggttta
 140761 attagttaga tgctatttag taatgaagta aagctagagg ctctgaacaa atcttgtgta
 140821 atttctctct gaatgagaga gaaaatttaa agtaagcaaa caataaagtt gtgtgtcacc
 140881 actcattcag tcatttaaca agtatttcca gactacttat tctgtgccag gaaatgttgt
 140941 aggtgccctc aacaacttag agtctagcct gagacacaag taagtaggta attattatag
 141001 aatgggtatga tctttggagg actgggtatt gctggctca tgggagtaca agataggtag
 141061 ccagtgtatga agtcaggaaa ggtttcttat ggtgatatga tgacgtctat gctgattata
 141121 aggtcagttg agaataaact ttgtgctttt aaatttgcat agcactgtat tagagagttc
 141181 atcttcaaaa taatcgaaaa ggctgagtggt ggtgacccat ggctgtaatc ccagcacttt
 141241 gggaggccga ggtgggcaga ttgcttgagc taggagttcg agaccaggct ggccaacatg
 141301 gtgaaccccc gtctctacta aaaatacaaa aattagccag gactgatggt gcgcacctgt
 141361 aatgccagct acttgggagg ctgaggcagg aggatcactt gaaccaggga ggtggaggtt
 141421 gaagtaagcc gaggtcatgc cactgcactc cagcctgggc aacagagtga gactccatct
 141481 caaaaaaa aaatgatc aaagaaaggt gaattttcat ctaccctatt tctgctgagg
 141541 aaatggact attttcaaat atttttaata aggtcaaaa tgagggatc

(2) INFORMATION FOR SEQ ID NO:2695:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1052 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2695

1 cctctctcgg ctgacgagc ttccccaact ggtaaccctt ccacacccca atcttcatgg
 61 accagagatc ttgatgttc cttccacagt tcaaaagacc cctttcgtca ccaccctgg
 121 gtatgacact ggaatggta ttcagcttcc tggcacttct ggtcagcaac ccagtgttgg
 181 gcaacaaatg atctttgagg aacatggttt tagggcgacc acaccgccca caacggccac
 241 ccccataagg cataggccaa gaccataccc gccgaatgta ggtgaggaaa tccaaattgg
 301 tcacattccc agggaagatg tagactatca cctgtaccca cacggtccgg gactcaatcc
 361 aaatgcctct acaggacaag aagctctctc tcagacaacc atctcatggg cccattcca
 421 ggacacttct gactacatca ttcatgtca tctgttggc actgatgaag aaccttaca
 481 ggtaattaat tgttctctc acttctcatg ggcagcaca gaaaggaata agttaggtaa
 541 ctgaagtga cagccctcga ataaaaagt gcttcatggc cgggtgtgat ggctcacgcc
 601 tgtaatccca gcactttggg aggccgaggc aggtggatca tttgaggtta ggagttcaag
 661 accagcctgg ccaacatggt gaaacctcgt ctcttgaaaa aaaaaaaaaa aaagtggctc
 721 caccttttag aacctcttag aagatggcac atttaagccc tgcttttttt tttttttaa
 781 tcccaatatg gctctacttt ggaggacata ccagagagtc actagccttt tatttccata
 841 gagaaaatga aactatttct cttatttcca cacatttgag gttccttttt gagtaagata
 901 gatggttcta gaaaagaaa aaagatatc tacctgaatt tccattttgtg tgcagaagtc
 961 taaaacacta cctttacgat ttgtccttga agaaccacac tatctacaac atatctaaag
 1021 aaaaaaaaaa acagcgaagc tgtgcatagc ag

(2) INFORMATION FOR SEQ ID NO:2696:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3185 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2696

1 atcaaacaga aatgactatt gaaggcttgc agccacagc ggagtatgtg gttagtgtct
 61 atgctcagaa tccaagcgga gagagtcagc ctctggttca gactgcagta accagtacgt

121 aaccactgct tggtttccat tttcaaagtc aaatthttgtt cttgggtgtc tgaatgccca
181 cgacatgtct tttgcaatta cacatagga aagtgaactt gttggttagt ttatgtcttg
241 agctgagccc tttacgaaca tcttttttcc ttctcagtc caagcgagga atttacagag
301 aaagaagttg tgaaccacc atagttagtt gctgtgcttt gaatttcttt ttgctcaaat
361 ggctcagcg aaatcttatt tgcctatagc aaatctacaa aaaatthttcc tagaccgtct
421 tttctacaac tggatggtaa agttgattga agtggtctc atgtagcttt atgtttgggg
481 catttgaagg gctatggctg gaccagagt taatataaat gcttaataga gaggggaaaa
541 gaagagtgtg agaaccatta tagggctggg ctacgcctg taatcccagc attttgggag
601 gctgagggcg atcacgaggt caggagtctg agaccgcct gaccaacatg gtgaaacccc
661 atctctacta aaaatacaaa aattagccag tcgcggtggc acgtgcctgt aatcccagct
721 actcacggag gctgagggcag aagaatcact tggacccagg aggcagaagt tgcagtgagc
781 caagatcatg cctctgcacc ccagcctagg tgatagagt agactccatc tcaaaaaaaa
841 acaaaacaaa acaattataa caatttgaat ctgaaccata tgcaaatcag ctttaccact
901 tccaaggtat aagaaaatcc aggtctatga gactaacatc acattgtaaa aatcaaatcg
961 tggtagaata cctttaaatt aatataaata catccccatt gtggggacat tttgcaggtt
1021 atctgcttat ctacacataa ccatgtttta ataagttagt caacattgca tttttctaa
1081 accaagaaaa attaagcaag tgtttaagt atttttctt tgatagtggg ttaattggac
1141 ttcataaag aaaaatggat ctgcaaaact gctttgcatg ttataaaaaat gcttatttca
1201 caacttgctt tcacataacc tcttaccatt aatttgccta acagacattg atcgccctaa
1261 aggactggca ttcactgatg tggatgtcga ttccatcaaa attgcttggg aaagccca
1321 ggggcaagtt tccaggtaca ggggtgacct ctgcagcct gaggatggaa tccatgagct
1381 attccctga cctgatggg aagaagacac tgcagagctg caaggcctca gaccgggttc
1441 tgagtacaca gtcagtgtgg ttgccttgca cgatgatag gagagccagc cctgatttgg
1501 aaccagctcc acaggtatat ggttaattgc acacaggtgc catgggagca gcggctttat
1561 gcctactgaa tgaattatgc ttcactgggc tattgattcc cgtgtaaggg tgaanaagaa
1621 ttattaggaa agatcctctt taaagaggaa tggtaagaaa caataaaact taggtgatat
1681 ttaaggaaac aagtctgatt aaaagaaatt ttggagtatc ctggcttata cacaagacca
1741 taaagcaaga catttgaaga ggatactaaa gttgtggatt atttcttaag ctctgactcc
1801 ctgtgattac cctcactatg tataaagaaa agaagtttgg cattacagag ctacttata
1861 aaaaggaacc caactcggg catttcatag cagcatgatt ctgagcacac gtgggtaaga
1921 cctttcttct ctggttagat atcatatgct ggtgtataat tagcttaaat gattgtgatt
1981 tagaacacca ggaataaata aatagggcaa ttgctttcca taatacttta tcttctgtg
2041 ctttatttct gaagcagagt agaattgtaa agatgtatcc tagtgacagc ataaacccta
2101 gaggtgacag tctgtattat tgcttttccg tctcttttcc tgcttctgtt gggagccagt
2161 tttcttctta cgccgcatta cagagagAAC gtcaaattha gcaagccata tctgccatag
2221 gtcacaataa agagacaata aaaattatct tctcttttct ggatggaata ctgcgtgaaa
2281 tggttatcca tacaaagata ctttatgtag aatagaaaaa ggaggccggg tgcagtggct
2341 cacacatgta atcctagtgc tttgggaggc taagccggga gactgattg aggccaggag
2401 ttcattgatc gcctgggcaa tgaagtgaag cccgtctct acaaaaaaat atgaaaaaat
2461 tagcgaggtg tggtgacaca tgcctgtagt cccagctact caagaggctg aggtagagga
2521 tcacttgagc ctacgagttc aaggctgcag tgaactatga taactccact gactgctgc
2581 ctggatgaca cagagagacc gtttctaaat taattaatta acaattttta gaaagaaaaa
2641 gggccattgc ttatttttcc atacaaaagt aaataaaatc ataattggca ataagccaat
2701 gtaacttttt ttttaaggg aaagcaaac ttgtaaaacc taaaatctct tagagttttg
2761 gcattttacc aaatgttttc agtgattctg agaattggtg gatataaaac acatttctca
2821 gcaaacactt tcttcatttt gcatccctta ctgtacttcc ttgtactgaa tctttgcttg
2881 accagggaac ccacctagcc caacaagAAC aatccattct acttcttggg actacgttta
2941 ttttctttt ccccatcttc ctataagata acctctaacc aatgacaatc tcgacagcta
3001 ttcttgacc aactgacctg aagttcactc aggtcacacc cacaagcctg agcgccagct
3061 ggacaccacc caatgttcag ctactggat atcgagtgcg ggtgaccccc aaggagaaga
3121 ccggaccaat gaaagaagtc aacctgtctc ctgacagctc atccgtgggt gtatcaggac
3181 ttatc

(2) INFORMATION FOR SEQ ID NO:2697:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2823 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2697

1 ctgcactttt gataacctga gtcccgccct ggagtacaat gtcagtgttt aactgtcaa
61 ggatgacaag gaaagtgtcc ctatctctga taccatcatc ccaggtaata gaaaataagc

121 tgctatcctg agagtgcacat tccaataaga gtggggatta gcatcttaat cccagatgc
181 ttaagggtgt caactatatt tgggatttaa ttccgatctc ccagctgcac tttccaaaac
241 caagaagtca aagcagcgat ttggacaaaa tgcttgctgt taacactgct ttactgtctg
301 tgcttactg ggatgctgtg tgttgacgag agtatgtaat ggagtggcag ccatggcttt
361 aactctgtat tgtctgctca catggaagta tgactaaaac actgtcacgt gctgtactc
421 agtactgata ggtctaaaagt aatatggtaa atgcatccca tcagtacatt tctgcccgat
481 ttacaatcc atatcaattt ccaacagctg cctatttcat cttgcagttt caaatcctc
541 tttttgaaaa ttggatttta aaaaaaagtt aagtaaaagt cacaccttca gggttgttct
601 ttcttggtgc cttgaaagac aacattgcaa aggcctgtcc taaggatagg cttgtttgtc
661 cattgggtta taacataatg aaagcattgg acagatcggt tccccctttg gactcttcag
721 tagaatgctt ttactaacgc taattacatg ttttgattat gaatgaacct aaaatagtgg
781 caatggcctt aacctaggcc tgtctttcct cagcctgaat gtgcttttga atggcacatt
841 tcacaccata cattcataat gcattagcgt tatggccatg atgttgtcat gagttttgta
901 tgggagaaaa aaaatcaatt tatcaccat ttattatatt ttccggtgtg tcatgcaagc
961 ttatttttcta ctaaaacagt ttggaatta ttaaaagcat tgcgtatact tacttcagat
1021 attatgtcta ggctctaaga atggttttga catcctaaac agccatatga tttttaggaa
1081 tctgaacagt tcaaattgta ccttttaagg atgttttcaa aatgtaaaaa atatatatat
1141 atatatatat tccctaaaag aatattcctg tttattcttc tagggaagca aactgttcat
1201 gatgcttagg aagtcttttc agagaattta aaacagattg catattacca tcattgcttt
1261 aacattccac caattttact actagtaacc tgatatacac tgctttattt tttcctcttt
1321 ttttccctct attttccttt tgctccccc tccctttgct ttgtaactca atagagggtgc
1381 cccaactcac tgacctaaagc ttgttgata taaccgattc aagcatcggc ctgagggtga
1441 ccccgctaaa ctcttcacc attattgggt accgcacac agtagttgag gcaggagaag
1501 gtatccctat ttttgaagat ttgtggact cctcagtagg atactacaca gtacaggggc
1561 tggagccggg cattgactat gatatacagc ttatcactct cattaatggc ggcgagagt
1621 cccctactac actgacacaa caaacgggtg aattttgaaa acttctgcgt ttgagacata
1681 gatgggtgtg catgctgcca ccagttactc cggttaaata tggatgtttc atggggggaag
1741 tcagcaattg gccaaagatt cagataggtg gaattggggg gataaggaaat caaatgcatc
1801 tgctaaactg attgagagaa aacacatgca atatcttcag tacactctca tttaaaccac
1861 aagtagatat aaagcctaga gaaatacaga tgtctgctct gttaaatata aaatagcaaa
1921 tgttcattca atttgaagac ctagaatttt tcttctttaa taccaaacac gaataccaaa
1981 ttgcgtaagt accaattgat aagaatatat caccaaaatg taccatcatg ctcttccttc
2041 taccctttga taaactctac catgctcctt cttgttagct aaaaacccat caaaatttag
2101 gtagagtggt atgggcattg ttttgaggtg ggagaaaagt aaacttgga ccatcttagg
2161 ttttgttgcgt gtcactaggt aaagaaacac ctctttaacc acagtctggg gacaagcatg
2221 caacatttta aaggttctct gctgtgcatg ggaaaagaaa catgctgaga accaatttgc
2281 atgaacatgt tcacttgtta gtagaattca ctgaatggaa ctgtagctct agatatctca
2341 catgggggga agtttaggac cctcttgtct ttttgtctgt gtgcatgtat ttctttgtaa
2401 agtactgcta tgtttctctt tgcgtgtgtg caacttaagc ctcttcggcc tgggataaaa
2461 taatctgcag tggatttaaa aatgtacata aagtcaacat atttgaaagt agattaaaa
2521 cttttttaaa tatatcaatg atggcaaaaa ggttaaaagg ggcctaacag tactgtgtgt
2581 agtgttttat ttttaacagt agtacactat aacttaaaat agacttagat tagactgttt
2641 gcatgattat gattctgttt ctttatgca tgaaatattg attttacctt tccagctact
2701 tcgtagctt taattttaaa atacattaac tgagtcctcc ttctgttgcg aaaccagctg
2761 ttctcctcc cactgacctg cgattcacca acattggtcc agacaccatg cgtgtcacct
2821 ggg

(2) INFORMATION FOR SEQ ID NO:2698:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7680 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2698

1 gaagagcaag aggcaggctc agcaaatggt tcagccccag tccccggtgg ctgtcagtc
61 aagcaagccc gttgttatg acaatggaaa acactatcag ataaatcaac agtgggagcg
121 gacctaccta ggtaatgtgt tggttgttac ttgttatgga ggaagccgag gttttaactg
181 cgaaagttaa cctgaagctg aagagacttg ctttgacaag tacactggga acacttaccc
241 agtgggtgac acttatgagc gtcctaaaga ctccatgac tgggactgta cctgcatcgg
301 ggctggggca gggagaataa gctgtaccat cgcaaacccg tgccatgaag ggggtcagtc
361 ctacaagatt ggtgacacct ggaggagacc acatgagact ggtggttaca tgttagagtg
421 tgtgtgtctt ggtaatggaa aaggagaatg gacctgcaag cccatagctg agaagtgttt

481 tgatcatgct gctgggactt cctatgtggt cggagaaaacg tgggagaagc cctaccaag
 541 ctggatgatg gtagattgta cttgcctggg agaaggcagc ggacgcatca cttgcacttc
 601 tagaaataga tgcaacgatc aggacacaag gacatcctat agaattggag acacctggag
 661 caagaaggat aatcgaggaa acctgctcca gtgcatctgc acaggcaacg gccgaggaga
 721 gtggaagtgt gagaggcaca cctctgtgca gaccacatcg agcggatctg gcccttcac
 781 cgatgttcgt gcagctgttt accaaccgca gcctcaccgc cagcctcctc cctatggcca
 841 ctgtgtcaca gacagtgggt tgggtctactc tgtggggatg cagtgggtta agacacaagg
 901 aaataagcaa atgcttttga cgtgcctggg caacggagtc agctgccaag agacagctgt
 961 aaccagact tacggtggca acttaaatgg agagccatgt gtcttaccat tcacctacaa
 1021 tggcaggacg ttctactcct gcaccacgga agggcgacag gacggacatc tttggtgcag
 1081 cacaacttcg aattatgagc aggaccagaa atactcttctc tgcacagacc acactgtttt
 1141 gatttcagat caaggaggaa attccaatgg tgcttctgtc cacttccccct tcctatacaa
 1201 caaccacaat tacactgatt gcacttctga gggcagaaga gacaacatga agtgggtgtg
 1261 gaccacacag aactatgatg ccgaccagaa gtttgggttc tgccccatg ctgcccacga
 1321 ggaaatctgc acaaccaatg aaggggtcat gtaccgcatt ggagatcagt gggataagca
 1381 gcatgacatg ggtcacatga tgaggtgcac gtgtgttggg aatggctcgt gggaaatggc
 1441 atgcatgtcc tactcgcaac ttcgagatca gtgcattgtt gatgacatca cttacaatgt
 1501 gaacgacaca ttccacaagc gtcataaga ggggcacatg ctgaactgta catgcttcgg
 1561 tcagggtcgg ggcaggtgga agtgtgatcc cgtcgacca tgcaggatt cagagactgg
 1621 gacgttttat caaattggag attcatggga gaagtatgt catggtgtca gataccagtg
 1681 ctactgctat ggccgtggca ttggggagtg gcattgccaa cctttacaga cctatccaa
 1741 ctcaagtgtt cctgtcgaag tatttatcac tgagactccg agtcaccga actcccccc
 1801 catccagtg aatgcaccac agccatctca catttccaag tacattctca ggtggagacc
 1861 taaaaattct gtaggccgtt ggaaggagc taccatacca ggccacttaa actcctacac
 1921 catcaaaagg ctgaagcctg gtgtggtata cgagggccag ctcatcagca tccagcagta
 1981 cggccaccaa gaagtgactc gctttgactt caccaccacc agcaccagca cactgtgac
 2041 cagcaacacc gtgacaggag agacgactcc cttttctcct cttgtggcca cttctgaatc
 2101 tgtgaccgaa atcacagcca gtactttgt ggtctcctgg gtctcagctt ccgacaccgt
 2161 gtcgggatcc cgggtggaat atgagctgag tgaggaggga gatgagccac agtacctgga
 2221 tcttccaagc acagccactt ctgtgaacat ccctgacctg ctctctggcc gaaaatacat
 2281 tgtaaatgtc tatcagatat ctgaggatgg ggagcagagt ttgatcctgt ctacttcaca
 2341 aacaacagcg cctgatgccc ctctgaccc gactgtggac caagttgatg acacctcaat
 2401 tgttgttcgc tggagcagac ccagggctcc catcacaggg tacagaatag tctattcgc
 2461 atcagtagaa ggtagcagca cagaactcaa ccttctgaa actgcaaac cgtcacccct
 2521 cagtgacttg caacctggtg ttcagtataa catcactatc tatgtctgtg aagaaaatca
 2581 agaaagtaca cctgttttca ttcaacaaga aaccactggc accccacgct cagatacagt
 2641 gccctctccc agggacctgc agtttgtgga agtgacagac gtgaagggtc ccatcatgtg
 2701 gacaccgctc gagagtgcag tgaccggcta ccgtgtggat gtgatccccg tcaacctgcc
 2761 tggcgagcac gggcagaggc tgcccatcag caggaaaccc tttgcagaag tcaccgggct
 2821 gtccccctgg gtcacctatt acttcaaagt ctttgcagt agccatggga gggagagcaa
 2881 gctctgact gctcaacaga caacaaaact ggatgctccc actaacctcc agtttgtcaa
 2941 tgaaactgat tctactgtcc tgggtgagatg gactccacct cgggcccaga taacaggata
 3001 ccgactgacc gtgggcctta ccggaaggc ccagcccagg cagtacaatg tgggtccctc
 3061 tgtctccaag taccctctga ggaatctgca gcctgcatct gactacaccg tatccctcgt
 3121 ggccataaag ggcaaccaag agagcccaa agccactgga gtctttacca cactgcagcc
 3181 tgggagctct attccacctt acaacaccga ggtgactgag accaccatcg tgatcacatg
 3241 gacgcctgct ccaagaattg gttttaagct ggggtgtacga ccaagccagg gaggagaggc
 3301 accacgagaa gtgacttcag actcaggaa agcatgtgtg tccggcttga ctccaggagt
 3361 agaatacgtc tacaccatcc aagtcctgag agatggacag gaaagagatg cgccaattgt
 3421 aaacaaagtg gtgacaccat tgtctccacc aacaaacttg catctggagg caaaccttga
 3481 cactggagt ctcacagtct cctgggagag gacgaccacc ccagacatta ctgggttatg
 3541 aattaccaca acccctacaa acggccagca gggaaattct ttggaagaag tggctcatgc
 3601 tgatcagagc tctgcactt ttgataacct gactcccggc ctggagtaca atgtcagtg
 3661 ttacactgtc aaggatgaca aggaaagtgt ccctatctct gataccatca tcccagctgt
 3721 tcctctctcc actgacctgc gattcaccaa cattgggtcca gacaccatgc gtgtcacctg
 3781 gcttccaccc ccatccattg atttaaccaa ctctctgtg cgttactcac ctgtgaaaaa
 3841 tgagggaagt gttgcagagt tgtcaatttc tccttcagac aatgcagtg tcttaacaaa
 3901 tctcctgcct ggtacagaat atgtagttag tgtctccagt gtctacgaac aacatgagag
 3961 cacacctctt agaggaagac agaaaacagg tcttgattcc ccaactggca ttgacttttc
 4021 tgatattact gccaaactct ttactgtgca ctggattgct cctcgagcca ccatcactgg
 4081 ctacaggatc cgccatcatc ccgagcactt cagtgggaga cctcgagaag atcgggtgcc
 4141 ccactctcgg aattccatca ccctcaccaa cctcactcca ggcacagagt atgtggtcag

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(2) INFORMATION FOR SEQ ID NO:2699:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14740 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2699

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6901 tcagagaaca aacactaatg ttaattgccc aattgagtgc ttcatgcctt tagatgtaca
6961 ggctgacaga gaagattccc gagagtaaat catctttcca atccagagg acaagcatgt
7021 ctctctgcca agatccatct aaactggagt gatgttagca gaccagctt agagttctt
7081 tttctttctt aagccctttg ctctggagga agttctccag cttcagctca actcacagct
7141 tctccaagca taccctggg agtttctga gggttttctc ataatgagg gctgcacatt
7201 gcctgttctg cttcgaagta ttcaataacc ctcagtattt taaatgaagt gattctaaga
7261 tttggtttgg gatcaatagg aaagcatatg cagccaacca agatgcaaat gttttgaat
7321 gatatgacca aaattttaag taggaaagtc acccaaacac ttctgcttct acttaaggt
7381 ctggcccgca atactgtagg aacaagcatg atcttgttac tgtgatattt taaatatcca

7441 cagtactcac tttttccaaa tgatcctagt aattgcctag aaatatcttt ctcttacctg
 7501 ttatttatca atttttccca gtatttttat acggaaaaaa ttgtattgaa aacacttagt
 7561 atgcagttga taagaggaat ttggtataat tatggtgggt gattattttt tatactgtat
 7621 gtgccaaagc ttactactg tggaagaca actgttttaa taaaagattt acattccaca

(2) INFORMATION FOR SEQ ID NO:2700:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2861 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2700

1 ctgctcctgc gcggcagctg ctttagaagg tctcagcctt cctgtacctt cccagggatg
 61 aaccgggect tcctcttgga aggcgagggg tggggccaca gtgagcgagg gccagggcgg
 121 tgggcgcgcg cagagggaaa ccggatcagt tgagagagaa tcaagagtag cggatgaggc
 181 gcttggtggg cgcggcccgg aagccctcgg gcgcgggctg ggagaaggag tgggcggagg
 241 cgcgcagga ggctcccggg gcctggctcg gccggctggg ccccgggcgc agtggagaa
 301 agggacgggc ggtgcccggg tgggcgtcct ggccagctca ccttgccctg gcggtcgc
 361 ccgcccggca cttgggagga gcagggcagg gcccgcgccc ttgtcattct gggaccgccc
 421 ccttcatttc ccgggccagc ggcgagcgcc agcgacggct ggagccgcag ctacagcatg
 481 agagcgggtg ccgctcctcc acgctcggg acgctggcg agcgaggca gcgctgctg
 541 ttgcgcctat gggggcaccg tgggctcgc cgacggcgcc ggccggcggg cggcgcggtg
 601 ggcgccgagg ccgggggctg ccatggaccg tctgtgtgct ggcgccgccc ggcttgacgt
 661 gtacggcgct gatcacctac gcttgctggg ggcagctgcc gccgctgcc tggcgctcgc
 721 caaccccgtc gcgaccggtg ggctgctgc tgtggtggga gcccttcggg gggcgcgata
 781 gcgccccgag gccgccccct gactgccggc tgcgttcaa catcagcggc tgcgcctgc
 841 tcaccgaccg cgcgtcctac ggagaggctc agcgctgctt ttccaccac cgcgacctcg
 901 tgaagggggc ccccgactgg ccccgccctt ggggcatcca ggccacact gccaggagg
 961 tggatctgcg cgtgttggac tacgaggagg cagcgcgcc gccagaagcc ctggcgacct
 1021 ccagcccccag gcccccggcg cagcgtggg tttggatgaa cttcgagtcg cctcgcact
 1081 ccccggggct gcgaagcctg gcaagtaacc tctcaactg gacgctctcc taccggcgcg
 1141 actcggacgt ctttgtgcct tatggtacc tctaccccag aagccacccc gccgaccgcg
 1201 cctcaggcct gggcccgcca ctgtccagga aacaggggct ggtggcatgg gtggtgagcc
 1261 actgggacga gcgcacggcc cgggtccgct actaccacca actgagccaa catgtgaccg
 1321 tggacgtgtt cggccggggc gggccggggc agccggtgcc cgaaattggg ctctgcaca
 1381 cagtggcccg ctacaagttc tacctggctt tgcgaaact gcagcacctg gattatatca
 1441 ccgagaagct ctggcgcaac gcgttgcctg ctggggcggt gccggtggtg ctgggcccag
 1501 accgtgccaa ctacgagcgc ttgtgcccc gcggcgctt catccacgtg gacgacttcc
 1561 caagtgcctc ctccctggcc tctacctgc ttctctcga ccgcaacccc gcggtctatc
 1621 gccgtacttt ccaactggcg cggagctacg ctgtccacat cacctccttc tgggacgagc
 1681 cttggtgccc ggtgtgccag gctgtacaga gggctgggga ccggcccaag agcatagcga
 1741 acttgcccaag ctggttcgag cgtggaagcc gcgtccccct ggaagcgacc caggggaggc
 1801 caagtgtgca gctttttgat cctctactgt gcattctctt gactgccgca tcatgggagt
 1861 aagtctctta aacacccatt ttgtctctat gggaaaaaaa cgatttacca attaatatta
 1921 ctacgacag agatgggggc ccggtttcca tattttttgc acagctagca attgggctcc
 1981 cttgtctgct gatgggcatc attgtttagg ggtgaaggag ggggttcttc ctacacttgt
 2041 aaccagtgcg gaaatgaaat agcttagcgg caagaagccg ttgagggcgt ttctgaatt
 2101 tccccatctg ccacaggcca tatttggtgc ccgtgcagct tccaaatctc atacacaact
 2161 gttcccagatt caggtttttc tggaccaagg tgaagcaaat ttgtggtgtt agaaggagcc
 2221 ttgttggtgg agagtggagg gactgtggct gcaggtggga cttgtgtgtt tggattcctc
 2281 acagccttgg ctcttgagaa aggtgaggag ggcagtcaca gaggggccgc tgacttcttt
 2341 cacaagtact atctgttccc ctgtcctgtg aatggaagca aagtgtgga ttgtccttgg
 2401 aggaacttta agatgaatac atcggtgtac ctactttac ataagaaatg tatctctgaa
 2461 aagctgcatt taaatcaagt cccaaattca ttgacttagg ggagttcagt attaatgaa
 2521 accctatgga gaatttatcc ctttacaatg tgaatagtca tctcctaatt tgtttcttct
 2581 gtctttatgt tttctataa cctggatttt ttaaatcata ttaaaattac agatgtgaaa
 2641 ataaagcaga agcaaccttt ttccctcttc ccagaaaacc agtctgtgtt tacagacaga
 2701 agagaaggaa gccatagtgt cacttcaca caattattta ttcatgtct ttactggacc
 2761 tgaattttaa actgcaatgc cagtcctgca ggagtgtgg cattaccctc tgcagaacag
 2821 tgaaggttat tgcactacat tatggaatca tgcaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2701:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1256 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2701

```
1 acgcgtggcg agcggaggca gcgctgacct ttcgcgccat gggggcaccg tggggctcgc
61 cgacggcggc ggcggggcgg cggcgcgggt ggcgccgagg ccgggggctg ccatggaccg
121 tctgtgtgct ggcggccgcc ggcttgacgt gtacggcgct gatcacctac gcttgctggg
181 ggcagctgcc gccgctgccc tgggcgtcgc caaccccgtc gcgaccggtg ggcgtgctgc
241 tgtggtggga gcccttcggg ggcgcgcata gcgccccgag gccgccccct gactgcccg
301 tgcgcttcaa catcagcgcc tgcgcctgc tcaccgaccg cgcgtcctac ggagaggctc
361 aggcggtgct tttccaccac cgcgacctc tgaaggggcc ccccgactgg ccccgccct
421 ggggcatcca ggcgcacact gccgaggagg tggatctgcg cgtgttggaac tacgaggagg
481 cagcggcggc ggcagaagcc ctggcgacct ccagccccag gccccgggc cagcgtggg
541 tttggatgaa cttcgagtcg cctcgcact ccccggggct gcgaagcctg gcaagtaacc
601 tcttcaactg gacgctctcc taccgggcgg actcggacct ctttgtgctc tatggtacc
661 tctacccagc aagccacccc ggcgacccgc cctcaggcct ggcccccca ctgtccagga
721 aacaggggct ggtggcatgg gtgtgagcc actgggacga gcgccaggcc cgggtccgct
781 actaccacca actgagccaa catgtgaccg tggacgtgtt cgccggggc gggccggggc
841 agccgggtgc cgaatttggg ctctgcaca cagtggcccg ctacaagttc tacctggctt
901 tcgagaactc gcagcactg gattatatca ccgagaagct ctggcgcaac gcgttgctgc
961 ctggggcggt gccggtgtg ctgggccag accgtgccaa ctacgagcgc tttgtgccc
1021 ggcgcgctt catccacgtg gacgacttcc caagtgcctc ctccctggcc tcgtacctgc
1081 tttcctcga ccgcaacccc gcggtctatc gccgtactt ccactgggc cggagctacg
1141 ctgtccacat cactccttc tgggacgagc cttggtgccg ggtgtgccag gctgtacaga
1201 gggctgggga ccggcccaag agcatacgga acttgccag ctggttcgag cggtag
```

(2) INFORMATION FOR SEQ ID NO:2702:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1126 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2702

```
1 cagatactct gacccatgga tcccctgggc ccggccaagc cacagtggtc gtggcgctgc
61 tgtctgacca cgctgctgtt tcagctgctg atggctgtgt gtttcttctc ctatctgcgt
121 gtgtctcaag acgataccac tgtgtaccct aatgggtccc gttcccca cagcacaggg
181 acccccgccc actccatccc cctgacctg ctgtggacct ggccttttaa caaacccata
241 gctctgcccc gctgctcaga gatggtgcct ggcacggctg actgcaacat cactgccgac
301 cgaagggtgt atccacaggc agacgggctc atcgtgcacc accgagaggt catgtacaac
361 ccagtgccc agctcccacg ctcccagagg cggcaggggc agcgatgga ctggttcagc
421 atggagtccc caagccactg ctggcagctg aaagccatgg acggatactt caatctcacc
481 atgtcctacc gcagcgactc cgacatcttc acgccctacg gctggctgga gccgtggtcc
541 ggcagcctg cccacccacc gctcaacctc tcggccaaga ccgagctggt ggcctgggca
601 gtgtccaaact gggggccaaa ctccgccagg gtgcgctact accagagcct gcaggcccat
661 ctcaaggtag acgtgtacgg acgctccac aagccctgc ccagggaac catgatggag
721 acgctgtccc ggtacaagtt ctatctggcc ttcgagaact ccttgacccc cgactacatc
781 accgagaagc tgtggaggaa cgccctggag gcctgggccc tgcctgggt gctgggcccc
841 agcagaagca actacgagag gtccctgccg ccgacgcct tcacccacgt ggacgacttc
901 cagagcccca aggacctggc ccggtacctg caggagctgg acaaggacca cggccgctac
961 ctgagctact ttcgctggcg ggagacgctg cggcctcgct ccttcagctg ggcaactcgt
1021 ttctgcaagg cctgctggaa actgcaggag gaatccaggt accagacacg cggcatagcg
1081 gcttggttca cctgagaggc ccggcatggg gcctgggctg ccaggg
```

(2) INFORMATION FOR SEQ ID NO:2703:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1701 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2703

```
1 aaggagcaca gttccaggcg gggctgagct agggcgtagc tgtgatttca ggggcacctc
```

61 tggcggtctgc cgtgatttga gaatctcggg tctcttggct gactgacccct gggagactgt
 121 ggatgaataa tgctgggacac ggccccaccc ggaggtctgc aggccttggg gtcctggccg
 181 ggggtggctct gctcgtctgcc ctctgggtcc tgtgggtgct ggggtcagcc cctcggggta
 241 ccccgccacc ccagcccacg atcaccatcc ttgtctggca ctggcccttc actgaccagc
 301 ccccagagct gccacgcgac acctgcaccc gctacggcat cggccgctgc cacctgagt
 361 ccaaccgaag cctgctggcc agcgcgcgac cctgggtctt ccaccaccgc gagctgcaga
 421 cccggcggtc ccacctgccc ctggcccagc ggccgcgagg gcagccctgg gtgtgggcct
 481 ccatggagtc tcctagccac acccacggcc tcagccacct ccgaggcatc ttcaactggg
 541 tgctgagcta ccggcgcgac tcggacatct ttgtgcccta tggccgcctg gagccccact
 601 gggggccctc gccaccgctg ccagccaaga gcagggtggc cgcttgggtg gtcagcaact
 661 tccaggagcg gcagctgctg gccaggctgt accggcagct ggccgctcat ctgcgggttg
 721 atgtctttgg ccgtgccaat ggacggccac tgtgcgccag ctgcctgggtg cccaccgttg
 781 cccagtaccg cttctacctg tcctttgaga actctcagca ccgcgactac attacggaga
 841 aattctggcg caacgcactg gtggctggca ctgtgccagt ggtgctgggg cccccacggg
 901 ccacctatga ggccttctgt ccgctgacg ccttcgtgca tgtggatgac tttggctcag
 961 cccgagagct ggcggcttct ctcactggca tgaatgagag ccgataccaa cgcttctttg
 1021 cctggcgtga caggctccgc gtgcgactgt tcaccgactg gcgggaacgt ttctgtgcca
 1081 tctgtgaccg ctaccacacac ctaccgcgca gccaaagtcta tgaggacctt gaggttgggt
 1141 ttcaggcctg agatccgctg gccgggggag gtgggtgtgg gtggaagggc tgggtgtcga
 1201 aatcaaacca ccaggcatcc ggccttacc ggcaagcagc gggctaaccg gaggtgggc
 1261 acagaggtca ggaagcaggg gtgggggggtg caggtgggca ctggagcatg cagaggaggt
 1321 gagagtggga gggaggtaac ggtgcctgc tgcgcgacag gggaggggaa agcgtgccga
 1381 ggacctctcc caccctgaac aaatcttggg tgggtgaagg cctggctgga agagggtgaa
 1441 aggcagggcc cttggggctg gggggcacc cagcctgaag tttgtggggg ccaaacctgg
 1501 gaccccgagc ttctctggta gcagaggccc tgtggtcccc gagacacagg cacgggtccc
 1561 tgccacgtcc atagtcttga ggtccctgtg ttaggcttgg ggccggggccc aggagaccac
 1621 ggggagcaaa ccagcttgtt ctgggctcag ggaggggagg cggtggacaa taaacgtctg
 1681 agcagtga aa aaaaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2704:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6944 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2704

1 ctgtcctctg cggcagctg ctttagaagg tctcagacct cctgtacctt cccagggatg
 61 aaccgggect tcctcttgga aggcgagggt tcgggccaca gtgagcgagg gccagggcgg
 121 tgggcgcgcy cagagggaaa ccggatcagt tgagagagaa tcaagagtag cggatgaggc
 181 gcttgtgggg cgcggcccgg aagccctcgg cgcggggctg ggagaaggag tgggcggagg
 241 cggcgcagga ggctcccggg gcctggctcg gccggctggg ccccgggcgc agtggagaa
 301 agggacgggc ggtgcccggt tggcgctcct gccagctca ccttgccctg gcggctcgcc
 361 ccgcccggca cttgggagga gcagggcagg gcccgcgcc tttgcattct gggaccgccc
 421 ccttcattc ccgggccagc ggcgagcgcc agcgacggtt gaagccgag ctacagcatg
 481 agagccggtg ccgctcctcc acgctgcgg acgctggcg agcgaggca gcgctgctg
 541 ttgcgcgcat gggggcaccg tgggctcgc cgacggcgcc ggccggcggg cgcgcggggt
 601 ggcgccgagg ccgggggctg ccatggaccg tctgtgtgct ggccggccgc ggcttgacgt
 661 gtacggcgct gatcacctac gcttctggg ggcagctgcc gccgctgccc tgggcgtcgc
 721 caaccccgtc gcgaccggtg ggctgtgctg tgtgggtggga gcccttcggg gggcgcgata
 781 gcgccccgag gccgcccct gactgccggc tgcgcttcaa catcagcggc tgcgcctgc
 841 tcaccgaccg cgcgtcctac ggagaggctc aggcgctgct tttccaccac cgcgacctcg
 901 tgaaggggcc ccccgactgg ccccgccct ggggcatcca ggccacact gccgaggagg
 961 tggatctgcg cgtgttggac tacgaggagg cagcggcggc ggacagaacc ctggcgacct
 1021 ccagccccag gcccccgggc cagcgctggg tttggatgaa cttcgagtcg ccctcgact
 1081 ccccggggct gcgaagcctg gcaagtaacc tcttcaactg gacgctctcc taccggcgcg
 1141 actcgagcgt ctttgtgctt tatggctacc tctaccccag aagccacccc gccgaccgcg
 1201 cctcaggcct gggcccggca ctgtccagga aacaggggct ggtggcatgg gtgggtgagc
 1261 actgggacga gcgccaggcc cgggtccgct actaccacca actgagccaa catgtgaccg
 1321 tggagctgtt cggccggggc ggccgggggc agccgggtgcc cgaatttggg ctctgcaca
 1381 cagtggcccg ctacaagttc tacctggctt tcgagaactc gcagcacctg gattatatca
 1441 ccgagaagct ctggcgcaac gcgttgctcg ctggggcggt gccgggtgtg ctggggccag
 1501 accgtgccaa ctacgagcgc tttgtgcccc gcggcgccct catccacgtg gacgaattcc

1561 caagtgcctc ctccttgccc tcgtacctgc ttttccctcga ccgcaacccc gcggtctatc
1621 gccgtactt ccactggcgc cggagctacg ctgtccacat cacctccttc tgggacgagc
1681 cttgggtgccg ggtgtgccag gctgtacaga gggctgggga ccggcccaag agcatacggg
1741 acttggccag ctggttcgag cggatgaagcc gcgctcccct ggaagcgacc caggggaggg
1801 caagtgttca gctttttgat cctctactgt gcatctcctt gactgccgca tcatgggagt
1861 aagtctttca aacacccatt tttgctctat gggaaaaaaa cgatttacca attaatatta
1921 ctcagcacag agatgggggc cgggtttcca tattttttgc acagctagca attgggctcc
1981 ctttgcctgc gatgggcac attgttttag ggtgaaggag ggggttcttc ctcacctgtt
2041 aaccagtgc gaaatgaaat agcttagcgg caagaagcgg ttgaggcggg ttcctgaatt
2101 tccccatctg ccacaggcca tatttgtggc ccgtgcagct tccaaatctc atacacaact
2161 gttcccgaat cacgtttttc tggaccaagg tgaagcaaat ttgtggttgt agaaggagcc
2221 ttgttggtgg agagtggag gactgtggct gcagggtggg ctttgttgtt tggattcctc
2281 acagccctgg ctctcgagaa aggtgaggag ggcagtccaa gaggggcccgc tgaactcttt
2341 cacaagtact atctgttccc ctgtcctgtg aatggaagca aagtgtctga ttgtccttgg
2401 aggaacttta agatgaatac atgcgtgtac ctacttttac ataagaaatg tattcctgaa
2461 aagctgcatt taaatcaagt cccaaattca ttgacttagg ggagttcagt atttaataaa
2521 accctatgga gaatttatcc ctttacaatg tgaatagtc tctcctaatt tgtttctctc
2581 gtctttatgt ttttctataa cctggatttt ttaaatcata ttaaaattac agatgtgaaa
2641 ataaagcaga agcaaccttt ttcctctctc ccagaaaacc agtctgtgtt tacagacaga
2701 agagaaggaa gccatagtgt cacttcacca caattattta tttcatgtct ttaactggac
2761 tgaattttta actgcaatgc cagtctctga ggagtgctgg cattaccctc tgcagaacag
2821 tgaaggttat tgcactacat tatggaatca tgcaaaaaaa a
1 acgcgtggcg agcggaggca gcgctgcctg ttcgcgccat gggggcaccg tggggctcgc
61 cgacggcggc ggcggggcgg cgcgcgggt ggcgcgagc ccgggggctg ccatggaccg
121 tctgtgtgct ggcggccgccc ggcttgactg gtacggcgct gatcacctac gcttgcctgg
181 ggcagctgcc gccgctgccc tgggcgtcgc caaccccgtc gcgaccggtg ggcgtgctgc
241 tgtgtgtgga gcccttcggg gggcgcgata gcgccccgag gccgccccct gactgccgcg
301 tgcgcttcaa catcagcggc tgcgcctgc tcaccgaccg cgcgtcctac ggagaggtct
361 aggcgctgct tttccaccac cgcgacctcg tgaaggggcc ccccgactgg ccccgccctc
421 ggggcatcca ggcgcacact gccgaggagg tggatctgcg cgtgttgagc tacgaggagg
481 agcggcgccg gccagaagcc ctggcgacct ccagccccag gcccccgggc cagcgctggg
541 tttggatgaa cttcgagtcg cctcgcact ccccggggct gcgaagcctg gcaagtaacc
601 tcttcaactg gacgctctcc taccggcgcg actcggacgt ctttgtgctt tatggctacc
661 tctaccccag aagccacccc ggcgaccgct cctcaggcct ggccccgcca ctgtccagga
721 aacaggggct ggtggcatgg gtggtgagcc actgggacga gcgccaggcc cgggtccgct
781 actaccacca actgagccaa ctgtgaccg tggacgtgtt cggccggggc gggccggggc
841 agcgggtgcc cgaattggg ctctgcaca cagtggcccg ctacaagttc tacctgctt
901 tcgagaactc gcagcacctg gattatatca ccgagaagct ctggcgcaac gcgttgctcg
961 ctggggcggt gccggtggtg ctgggcccag accgtgcaa ctacgagcgc tttgtgcccc
1021 gcgggcctt catccacgtg gacgacttcc caagtgcctc ctccttgccc tcgtacctgc
1081 ttttccctga ccgcaacccc gcggtctatc gccgctactt ccaactggcg cggagctacg
1141 ctgtccacat cacctccttc tgggacgagc cttggtgcgg ggtgtgccag gctgtacaga
1201 gggctgggga ccggcccaag agcatacggg acttggccag ctggttcgag cggtag
1 cagatactct gaccatgga tcccctgggc ccggccaagc cacagtgggc gtggcgctgc
61 tgtctgacca cgtgctggtt tcagctgctg atggctgtgt gtttcttctc ctatctgcgt
121 gtgtctcaag acgateccac tgtgtaccct aatgggtccc gcttcccaga cagcacaggg
181 acccccgcgc actccatccc cctgatcctg ctgtggacgt ggccttttaa caaacccata
241 gctctgcccc gctgctcaga gatggtgcct ggcacggctg actgcaacat cactgcccag
301 cgaaggtgt atccacaggc agacgcggtc atcgtgcacc accgagaggt catgtacaac
361 ccagtgccc agtcccacg ctccccagg cggcaggggc agcgatggat ctggttcagc
421 atggagtccc caagccactg ctggcagctg aaagccatgg acggatactt caatctcacc
481 atgtctacc gcagcgactc cgacatcttc acgcccactg gctggctgga gccgtggtcc
541 ggcagcctg cccaccccac gctcaacctc tcggccaaga ccgagctggt ggcctgggca
601 gtgtccaaat gggggccaaa ctccgcagg gtgcgctact accagagcct gcaggcccat
661 ctcaaggtgg acgtgtacgg acgctcccac aagcccctgc cccaggggac catgatggag
721 acgtgtcccc ggtacaagtt ctatctggcc ttcgagaact ccttgcaacc cgactacatc
781 accgagaagc tgtggaggaa cgccctggag gcctggggcg tgcctggtgt gctgggcccc
841 agcagaagca actacgagag gtctctgcgg cccgacgcct tcatccactg ggacgacttc
901 cagagcccca aggacctggc ccggtacctg caggagctgg acaaggacca cgcccgtctc
961 ctgagctact ttcgtggcg ggagacgctg cggcctcgtc cttcagctg ggcactgcct
1021 tcttgcaagg cctgtggaa actgcaggag gaatccaggt accagacacg cggcatagcg
1081 gcttgggttca cctgagaggc ccggcatggg gcctgggctg ccaggg

1 aaggagcaca gttccaggcg gggtctgagct agggcgtagc tgtgatttca ggggcacctc
61 tggcggctgc cgtgatttga gaattctcggg tctcttggct gactgatcct gggagactgt
121 ggatgaataa tgctggggcac ggccccaccc ggaggtgctg aggcttgggg gtccctggccg
181 ggggtgctct gctcgtctgcc ctctggtctc tgtggctgct ggggtcagcc cctcggggta
241 ccccgccacc ccagcccacg atcaccatcc ttgtctggca ctggcccttc actgaccagc
301 cccagagct gccagcgac acctgcacc gctacggcat cggcgctgc cacctgagt
361 ccaaccgaag cctgctggcc agcgccgacg ccgtggtctt ccaccaccgc gagctgcaga
421 cccggcggtc ccacctgccc ctggcccagc ggccgagag gcagccctgg gtgtgggctc
481 ccatggagtc tctagccac accacggcc tcagccacct ccgagggatc ttcaactggg
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601 gggggccctc gccaccgtg ccagccaaga gcagggtggc cgcctgggtg gtcagcaact
661 tccaggagcg gcagctgctg gccaggctgt accggcagct ggccgctcat ctgggggtgg
721 atgtctttgg ccgtgccaat ggacggccac tgtgcgcag ctgcctgggtg cccaccgtgg
781 ccagttaccg ctctacctg tctttgaga actctcagca ccgcgactac attacggaga
841 aattctgctg caacgcactg gtggtggca ctgtgccagt ggtgctgggg cccccacggg
901 ccacctatga ggccttctg ccggtgacg ccttctgca tgtggatgac tttggtcag
961 cccgagagct ggcggtcttc ctactggca tgaatgagag ccgataccaa cgcttctttg
1021 cctggcggtg caggctccgc gtgcgactgt tcaccgactg gcgggaacgt ttctgtgcca
1081 tctgtgaccg ctaccacac ctaccccgca gccagtcta tgaggacctt gagggttgg
1141 ttcaggctcg agatccgctg gccgggggag gtgggtgtgg gtggaagggc tgggtgtcga
1201 aatcaaacca ccagggatcc ggccttacc ggcaagcagc gggctaaccg gaggctgggc
1261 acagaggtca ggaagcagg gtgggggtg caggtgggca ctggagcatg cagagaggtg
1321 gagagtggga gggaggtaac ggggtgctgc tgcggcagac gggaggggaa aggctgccga
1381 ggacctccc caccctgaac aaatcttggg tgggtgaagg cctggctgga agaggggtga
1441 aggcagggcc cttggggctg gggggcaccc cagcctgaag tttgtggggg ccaaacctgg
1501 gaccccgagc ttctcgtgta gcagaggccc tgtggtcccc gagacacagg cacgggtccc
1561 tgccacgtcc atagtctga ggtccctgtg ttaggctgg ggccggggcc aggagaccac
1621 ggggagcaaa ccagcttgtt ctgggctcag ggaggggagg cggtggacaa taaacgtctg
1681 agcagtga aa aaaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2705:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2025 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2705

1 cccccctcca agataatttt taaaaaacct tctcctttgc tcacctttgc ttcccagcct
61 tcccatcccc ccaccgaag caaatcatcc aacgacccc gacctccga cggcagagagc
121 ccccgacct cccaggcgga ccgcccctccc tccccggggt tccggggccc gcgagagggc
181 gcgagcacag ccgaggccat ggaggtgacg gcggaccagc cgcgctgggt gagccaccac
241 cccccgcggt tgctcaacgg gcagcaccgg gacacgcacc acccgggcct cagccactcc
301 tacatggacg cggcgagta ccgctgccc gaggaggtgg atgtgcttt taacatcgac
361 ggtcaaggca accacgtccc gccctactac ggaactcgg tcagggccac ggtgcagagg
421 taccctccga cccaccacgg gagccaggtg tgcggcccgc ctctgcttca tggatcccta
481 cctggtgctg acggcggaag agcctgggg agccaccaca ccgcctcccc ctggaatctc
541 agccccctct ccaagacgtc catccaccac ggctcccccg ggcctctc ctgtaccctc
601 ccggcctcgt cctcctcctt gtcggggggc cagccagcc cgcacctctt cacttccc
661 cccaccccg cgaaggacgt ctccccggac ccatcgctgt ccaccccagg ctccggccgg
721 tggcccgggc aggacgagaa agagtgcctc aagtaccagg tgcctctg ccgacagcatg
781 aagctggagt cgtccactc ccgtggcagc atgaccgccc tgggtggagc ctccctcgtc
841 acccaccacc ccatcaccac ctaccggccc tacgtgccc agtacagctc cggactcttc
901 cccccagca gcctgctggg cggctcccc accggcttc gatgcaagtc caggcccaag
961 ggccgggtcc gacagaagg caggaggtgt gtgaactgtg gggcaacctc gacccactg
1021 tggcggcgag atggcacggg aactacctg tgcaacgcct gcgggctcta tcacaaatg
1081 aacggacaga accggcccct cattaagccc aagcgaaggc tgtctgcagc caggagagca
1141 gggacgtcct gtgcgaactg tcagaccacc acaaccacac tctggaggag gaatgccaat
1201 ggggaccctg tctgcaatgc ctgtgggctc tactacaagc tcaaatat taacagacc
1261 ctgactatga agaaggaaag catccagacc agaaaccgaa aatgtctag caaatcaaa
1321 aagtgaataa aagtgcata ctactggag gacttcccca agaacagctc gtttaaccgg
1381 gccgcccctc ccagacacat gtcctccctg agccacatct cgcctctcag ccaactccagc
1441 cacatgctga ccacgcccac gccgatgcac ccgcatcca gcctgtcctt tggaccacac

1501 caccctccca gcatgggtcac cgccatgggt tagagccctg ctcatgctc acagggcccc
 1561 cagcgagagt cctgcagtc ccttcgact tgcatttttg caggagcagt atcatgaagc
 1621 ctaaacgcga tggatatatg tttttgaagg cagaaagcaa aattatgttt gccactttgc
 1681 aaaggagctc actgtgtgtg ctgtgttcca accactgaat ctggacccca tctgtgaata
 1741 agccattctg actcatatcc cctatttaac agggctctcta gtgctgtgaa aaaaaaatg
 1801 ctgaacattg catataactt atattgtaag aaatactgta caatgacttt attgcatctg
 1861 ggtagctgta aggcataag gatgccaaag agtttaagga atatgggaga aatgggtgtg
 1921 aaattaagaa gaaactaggt ctgatattca aatggacaaa ctgccagttt tgtttccttt
 1981 cactggccac agttgtttga tgcattaaaa gaaaataaaa aaaag

(2) INFORMATION FOR SEQ ID NO:2706:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 789 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2706

1 acacagagag aaaggctaaa gttctctgga gtagtggtg gtagagcctg ctgctcttgg
 61 gcaactgtggc ctgcagcacc tctgcaccgc cccgctcgcc cagccccagc acgcagccct
 121 gggagcatgt gaatgccatc caggaggccc ggcgtctcct gaacctgagt agagacactg
 181 ctgctgagat gaatgaaaca gtagaagtca tctcagaaat gtttgacctc caggagccga
 241 cctgcctaca gaccgcctg gagctgtaca agcagggcct gcggggcagc ctcaccaagc
 301 tcaagggccc cttgacctg atggccagcc actacaagca gcaactgcct ccaaccccg
 361 aaacttcctg tgcaaccag attatcacct ttgaaagt tcaaagagaac ctgaaggact
 421 ttctgcttgt catccccttt gactgctggg agccagtcga ggagtggagc cggccagatg
 481 aggttgccca agccggggag ctgctctctc atgaaacaag agctagaaac tcaggatggt
 541 catcttgagg ggaaccaagg gtgggccaca gccatggtgg gtagtggcctg gacctgcctt
 601 gggcacactg accctgatac aggcattgca gaagaatggg aatatattat actgacagaa
 661 atcagtaata ttatatatt tatattttta aaatatttat ttatttattt atttaagttc
 721 atattccata ttattcaag atgtttttacc gtaataatta ttattaaaaa tagcttctaa
 781 aaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2707:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1283 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2707

1 ttctctctga ccagcaccat gttctctctg gtgacaagcc ttctgctctg tgagttacca
 61 caccagcat tctctctgat ccagagaaa tcggatctgc gaacagtggc accagcctct
 121 agtctcaatg tgaggtttga ctccaggacg atgaatttaa gctgggactg ccaagaaaaac
 181 acaaccttca gcaagtgttt cttaactgac aagaagaaca gtagctgga acccaggctc
 241 agtaacaacg aatgttcgtg cacatttcgt gaaatttgc tgcatgaagg agtcacattt
 301 gaggttcacg tgaatactag tcaaagagga ttcaacaga aactgcttta tccaaattca
 361 ggaagggagg gtaccgctgc tcagaatttc tctgttttca tctacaatgc ggatttaagt
 421 aactgtacct gggcgagggg tccgacggcc cccgctgacg tccagtattt ttgtacata
 481 cgaaactcaa agagaaggag ggagatccgg tgcctttatt acatacaaga ctcaggaacc
 541 catgtgggat gtcacctgga taacctgtca ggattaacgt ctgcgaatta ctttctggtt
 601 aacggaacca gccgagaaa ttgcatccaa ttctttgatt cacttttgga cacaagaaa
 661 atagaacgat tcaaccctcc cagcaatgtc accgtacgtt gcaacacgac gcactgcctc
 721 gtacggtgga aacagcccag gacctatcag aagctgtcgt acctggactt tcagtaccag
 781 ctggacgtcc acagaaagaa taccagcctt ggcacgaaa acctactgat taatgtttct
 841 ggtgatttgg aaaatagata caactttcca agctctgagc ccagagcaaa acacagtgtg
 901 aagatcacag ctgcagacgt ccgcatcttg aattggagct cctggagtga agccattgaa
 961 ttggttcct taggatacag cggctgttcc cgccagttcc acagatcaaa gacaaactga
 1021 atgataacca tgaagtgaaa gacgagatca tctgggagga attcacccta gaggaaggga
 1081 aaggctaccg cgaagaggtc ttgaccgtga aggaattac ctgagacca gaggggtgag
 1141 gaatggcatg gacatctccg cctccgcgac acgggggaac tgttttcttg atgatgctgt
 1201 gaacctttat atcattttct atgtttttat ttaaaaacat gacatttggt gccaggcgcg
 1261 gtggctcacg cctgtaatcc cag

(2) INFORMATION FOR SEQ ID NO:2708

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3043 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2708

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1  ttctcagagt  ggctgcagtc  tcgctgctgg  atgtgcacat  ggtggtcatt  ccctctgctc
61  acaggggcag  ggtccccc  ttactggact  gaggttgccc  cctgctccag  gtccctgggtg
121  ggagcccatg  tgaactgtca  gtggggcagg  tctgtgagag  ctcccccac  actcaagtct
181  ctctcacagt  ggcagagaaa  gaggaaggct  ggagtcagaa  tgaggcacca  gggcgggcat
241  agcctgcccc  aaggcccctg  ggattacagg  caggatgggg  agccctatct  aagtgtctcc
301  cacgcccac  ccagccatt  ccaggccagg  aagtccaaac  tgtgcccctc  agaggagggg
361  ggcagcctca  ggccatttca  gactgccag  ggagggtctg  agagccctca  ggaaggcggtg
421  tgggtgggct  gtcggttctt  ggaaagggtt  attaatgaaa  acccccagc  ctgaccacct
481  agggaaaag  ctcaccgttc  ccattgtgtg  ctgataagg  ccaggagatt  ccacagtcca
541  ggtagtcccc  ccgctccct  ggcattttgt  ggtcaccatt  aatcatttcc  tctgtgtatt
601  taagagctct  ttgcccagt  agcccagcta  cacagagaga  aaggctaaag  ttctctggag
661  gatgtggctg  cagagcctgc  tgctcttgg  cactgtggcc  tgcagcatct  ctgaccccg
721  ccgctcgccc  agcccagca  cgcagccctg  ggagcatgtg  aatgccatcc  aggaggcccg
781  gcgtctcctg  aacctgagta  gagacactgc  tgctgagatg  gtaagtgaga  gaatgtgggc
841  ctgtgctagg  caccagtggc  cctgactggc  cacgctgtc  agcttgataa  catgacattt
901  tccttttcta  cagaatgaaa  cagtagaagt  catctcagaa  atgtttgacc  tccaggtaag
961  atgcttctct  ctgacatagc  ttccagaag  cccctgccct  ggggtggagg  tggggactcc
1021  attttagatg  gcaccacaca  ggggtgtcca  cttctctcc  agtcagctgg  ctgcaggagg
1081  agggggtagc  aactgggtgc  tcaagaggct  gctggccgtg  cccctatggc  agtcacatga
1141  gctcctttat  cagctgagcg  gccatgggca  gacctagcat  tcaatggcca  ggagtcacca
1201  ggggacaggt  ggtaaagtgg  gggtcacttc  atgagacagg  agctgtgggt  ttggggcgct
1261  cactgtgccc  cgagaccaag  tcctgttgag  acagtgtgta  ctacagagag  gcacagaggg
1321  gtttcaggaa  caacccttgc  ccaccagca  ggtccagggt  agggccacc  cccctctccc
1381  tgaatgatgg  ggtgagagtc  acctccttcc  ctaaggctgg  gctcctctcc  aggtcccgct
1441  gaggggtggc  tgggcggggc  agtgagaagg  gcagggtcgt  gctgcccag  gacagggcag
1501  ggtctatgac  tggaccacgc  ctgtgcccct  cccaagccct  actcctgggg  gctgggggca
1561  gcagcaaaaa  ggagtgggtg  agagtctctg  taccactgtg  ggcacttggc  cactgtctac
1621  cgacgaacga  cattttccac  aggagccgac  ctgcctacag  accgcctgg  agctgtacaa
1681  gcagggcctg  cggggcagcg  tcaccaagct  caagggcccc  ttgaccatga  tggccagcca
1741  ctacaagcag  cactgccctc  caaccccggt  gagtgcctac  ggcagggcct  ccagcaggaa
1801  tgtcttaatc  taggggggtg  ggtcgacatg  gggagagatc  tatggctgtg  gctgttcagg
1861  accccagggg  gtttctgtgc  caacagttat  gtaatgatta  gccctccaga  gaggaggcag
1921  acagcccatt  tcattccaa  gagtccagagc  cacagagcgc  tgaagccac  agtgctcccc
1981  agcaggagct  gctcctatcc  tggctattat  tgtcattacg  gttaatgagg  tcagagggtga
2041  gggcaaacc  aaggaaactt  ggggcctgcc  caaggccag  aggaagtggc  caggcccaag
2101  tgccaccttc  tggcaggact  ttctctggc  cccacatggg  gtgcttgaat  tgcagaggat
2161  caaggaagg  aggtactctg  gaatggacaa  ggacctcagg  cactccttcc  tgcgggaagg
2221  gagcaaaagt  tgtggccttg  actccactcc  ttctgggtgc  ccagagacga  cctcagccca
2281  gctgccctgc  tctgccctgg  gacaaaaaag  gcaggcggtt  gactgccag  aaggccaacc
2341  tcaggctggc  acttaagtca  ggcccttgac  tctggctgcc  actggcagag  ctatgcactc
2401  cttggggaac  acgtgggtgg  cagcagcgtc  acctgaccca  ggtcagtggt  tgtgtcctgg
2461  agtgggcctc  ctggcctctg  agttctaaga  ggcagtagag  aaacatgctg  gtgcttctt
2521  cccccacgtt  acccaacttc  ctggactcaa  gtgtttttta  ttttctttt  ttttaaggaa
2581  acttctctgt  caaccagat  tatcacctt  gaaagtttca  aagagaacct  gaaggacttt
2641  ctgcttgtca  tcccctttga  ctgctgggag  ccagtccagg  agtgagaccg  gccagatgag
2701  gctggccaag  ccggggagct  gctctctcat  gaaacaagag  ctagaaactc  aggatggtca
2761  tcttgagggg  accaaggggt  gggccacagc  catggtggga  gtggcctgga  cctgccctgg
2821  gcacactgac  cctgatacag  gcatggcaga  agaattggaa  tattttatac  tgacagaaa
2881  cagtaatat  tatatattta  tatttttaaa  atatttattt  atttatttat  ttaagttcat
2941  attccatatt  tattcaagat  gttttaccgt  aataattatt  attaaaaata  tgcttctact
3001  tgtccagtgt  tctagtttgt  ttttaaccat  gagcaaatgc  cat
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(2) INFORMATION FOR SEQ ID NO:2709:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5115 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2709

```

1 acacagagag aaaggctaaa gttctctgga ggatgtggct gcagagcctg ctgctcttgg
61 gcactgtggc ctgcagcctc tctgcacccg cccgctcgcc cagccccagc acgcagccct
121 gggagcatgt gaatgccatc caggaggccc ggcgtctcct gaacctgagt agagacactg
181 ctgctgagat gaatgaaaca gtagaagtca tctcagaaat gtttgacctc caggagccga
241 cctgcctaca gacccgcctg gagctgtaca agcaggccct gcggggcagc ctcaccaagc
301 tcaaggcccc cttgaccatg atggccagcc actacaagca gcaactgcct ccaacccccg
361 aaacttctctg tgcaacccag attatcacct ttgaaagttt caaagagaac ctgaaggact
421 ttctgtctgt catccccttt gactgctggg agccagtcca ggagtggagc cggccagatg
481 aggtctggcca agccggggag ctgctctctc atgaaacaag agctagaaac tcaggatggt
541 catcttgagg ggaccaaggg gtgggccaca gccatggtgg gagtggcctg gacctgccct
601 gggcacactg accctgatac aggcattggc gaagaatggg aatattttat actgacagaa
661 atcagtaata tttatatatt tatattttta aaatatttat ttattttatt atttaagttc
721 atattccata tttattcaag atgttttacc gtaataatta ttattaaaaa tagcttctaa
781 aaaaaaaaaa

1 ttctctctga ccagcaccat gcttctctctg gtgacaagcc ttctgctctg tgagttacca
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121 agtctcaatg tgaggtttga ctccaggacg atgaatttaa gctgggactg ccaagaaaaa
181 acaaccttca gcaagtgttt cttaactgac aagaagaaca gactcgtgga acccaggctc
241 agtaacaacg aatgttctgt cacatttctg gaaatttgct tgcattgaag agtcacattt
301 gaggttcacg tgaatactag tcaaagagga tttcaacaga aactgcttta tccaaattca
361 ggaaggagg gtaccgctgc tcagaatttc tctgttttca tctacaatgc ggatttaatg
421 aactgtacct gggcgagggg tccgacggcc ccccgtagcg tccagtattt ttgtacata
481 cgaaactcaa agagaaggag ggagatccgg tgtccttatt acatacaaga ctcaggaaac
541 catgtgggat gtcacctgga taacctgtca ggattaacgt ctgcgaatta ctttctgggt
601 aacggaacca gccgagaaat tggcatccaa ttctttgatt cacttttgga cacaagaaa
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721 gtacggtgga aacagcccag gacctatcag aagctgtcgt acctggactt tcagtaccag
781 ctggacgtcc acagaaagaa taccagcctt ggcacgaaa acctactgat taatgtttct
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901 aagatcagag ctgcagacgt ccgcatcttg aattggagct cctggagtga agccattgaa
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1081 aaggctaccg cgaagagggtc ttgaccgtga aggaaattac ctgagacca gaggggttag
1141 gaatggcatg gacatctccg cctcccgac acgggggaac tgttttcttg atgatgctgt
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1261 gtggtcacg cctgtaatcc cag

1 ttctcagagt ggctgcagtc tgcgtgctgg atgtgcacat ggtggtcatt cctctgctc
61 acaggggcag ggttccccct ttactggact gaggttgccc cctgctccag gtcctgggtg
121 ggagcccatg tgaactgtca gtggggcagg tctgtgagag ctcccctcac actcaagtct
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421 tgggtgggct gtcggttctt ggaaagggtt attaatgaaa acccccagc ctgaccacct
481 agggaaaagg ctcaccgttc ccatgtgtgg ctgataaggg ccaggagatt ccacagtcca
541 ggtagtcccc ccgctcctct ggcattttgt ggtcaccatt aatcatttcc tctgtgtatt
601 taagagctct tttgccagt agcccagcta cacagagaga aaggctaaaag ttctctggag
661 gatgtggctg cagagcctgc tgccttggg cactgtggcc tgcagcatct ctgcacccgc
721 cgcctcgccc agcccagca cgcagccctg ggagcatgtg aatgccatcc agggggccc
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1201 ggggacaggt ggtaagtggt gggtcacttc atgagacagg agctgtgggt ttggggcgct
1261 cactgtgccc cgagaccaag tctgtttgag acagtgtctg ctacagagag gcacagagg
1321 gtttcaggaa caacccttgc ccaccagca ggtccagggt agggccacc cccctctccc

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1381 tgaatgatgg ggtgagagtc acctccttcc ctaaggctgg gctcctctcc aggtgccgct
1441 gagggtggcc tgggcggggc agtgagaagg gcagggtcgt gctgccatg gacaggcgag
1501 ggtctatgac tggaccacgc ctgtgcccct cccaagccct actcctgggg gctgggggca
1561 gcagcaaaaa ggagtggtgg agagtctctg taccactgtg ggcacttggc cactgctcac
1621 cgacgaacga catcttccac aggagccgac ctgcctacag acccgcttgg agctgtacaa
1681 gcagggcctg cggggcgagc tcaccaagct caaggggccc ttgaccatga tggccagcca
1741 ctacaagcag cactgccctc caaccgggt gagtgcctac ggcaggccct ccagcaggaa
1801 tgtcttaate taggggtggg ggtcgacatg gggagagatc tatggctgtg gctgttcagg
1861 accccagggg gtttctgtgc caacagttat gtaatgatta gccctccaga gaggaggcag
1921 acagccattt tcatcccaag gagtcagagc cacagagcgc tgaagcccac agtgctcccc
1981 agcaggagct gctcctatcc tgggtcattat tgtcattacg gttaatgagg tcagagggtga
2041 gggcaaaccc aaggaaactt ggggcctgcc caaggcccag aggaagtgcc caggcccaag
2101 tgccaccttc tggcaggact ttctctgggc ccacatggg gtgcttgaat tgcagaggat
2161 caaggaaggg aggtactctg gaatggacaa ggacctcagg cactccttcc tgcgggaagg
2221 gagcaaaagt tgtggccttg actccactcc ttctgggtgc ccagagacga cctcagccca
2281 gctgccctgc tctgcccttg gacaaaaaag gcaggcggtt gactgcccag aaggccaacc
2341 tcaggctggc acttaagtca ggccttgac tctggctgcc actggcagag ctatgcactc
2401 cttggggaac acgtgggtgg cagcagcgtc acctgaccca gggtcagtgg tgtgtcctgg
2461 agtgggcctc ctggcctctg agttctaaga ggcagtagag aaacatgctg gtgcttccct
2521 cccccacggt acccacttgc ctggactcaa gtgtttttta tttttctttt tttaaaggaa
2581 acttctctgt caaccagat tatcaccttt gaaagtcca aagagaacct gaaggacttt
2641 ctgcttgcac tcccctttga ctgctgggag ccagtcagg agtgagaccg gccagatgag
2701 gctgccaag cgggggagct gctctctcat gaaacaagag ctagaacctc aggatggtca
2761 tcttgagggg accaaggggt gggccacagc catggtggga gtggcctgga cctgccctgg
2821 gcacactgac cctgatacag gcatggcaga agaattggaa tatattatcc tgacagaaat
2881 cagtaatat tttatattta ttttttaaaa atatttattt atttatttat ttaagttcat
2941 attccatatt tattcaagat gttttaccgt aataattatt attaaaaata tgcttctact
3001 tgtccagtgt tctagtttgt ttttaacctat gagcaaatgc cat

(2) INFORMATION FOR SEQ ID NO:2710:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2440 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2710

1 atcctggctg atatggtgaa accccatctc tactaaaaat acaaaaatta gctgggcggtg
61 gtgggtggcg catgtaatcc cagctactca ggaggctgag gcaggagaat tacttgaacc
121 tgggagggcag aggttgcagt gaaccgagat cgcgccattg cactccagtc tggcgacaga
181 gcgagactcc gtctctaaat aaataaataa ataaatttag ccttctactc aagaacttat
241 ctggctttgt cttaatgtaa aaataatttc tttttgctaa attattgaga gaaatttact
301 atttattagt gtttatcagt tttctttaaa ctcaccactt tttgatgaat atgaaaaatc
361 aaaaacttgg ccgggcgcag tggctcacac ctgtaatctc agcactttgg gaggccaagg
421 tgggcggatc atctgaggtc aggagttcaa gatcgcctg accaacatgg tgaacccct
481 tctctactaa aaatacaaaa attagctggg cgtggtgggt ggtgcctgta attgtagcta
541 cttgggaggg tgaggcatga gaatcacttg aaccagaaa gcagagggtg cagtgaagctg
601 agatggtgcc actgcactcc agcctgggtg acagagttag actctgtcct aaaaaaaaaa
661 aaaaaaaaaa tggctgggag tgggtgcctca tgcctgtaat ccagcactt tgggagtcca
721 gcgtgggtgg atcacctgag gtcaggagtt caagtccagc ctgaccaaca tgggtgaacc
781 ccgtctctac taaaaaagta caaaaaaat agccgggtgt ggtggcacac tctgtaatc
841 ccagctactc aggaggtgga ggcaggagaa tcacttgaat ttgggagctg gagattgtag
901 tcagccaaga tgggtgccatt gcactccagt ctgggtgaca gagtgaagct ccatctcaaa
961 aaaaaaaaaa aaatcttaaa aactccttcc agaagattta atacttactt tcaccaacc
1021 acccgacttg agtatcacca ataacagagg atacagtccg ttttcagtag agccttagta
1081 gcaaaggggt ttcattttta ttttcagat acaggatctt gccctgtcac ccaagctgga
1141 gtgcagtgat gtgatcatag ctgactgcag cctcctgagt agctaggact ataggtgtat
1201 tataggacaa tttttaaaaa atttcatgtt aaagacagga ttccactgtg ttgccaggc
1261 tgcaagtctt ggcctcaagt gatcattcca ctttaactc ttgccctcaa gcagtcctcc
1321 cacctcagac tcccaaaatg ctgggattat ggggtgtgag caccatttcc agcctactag
1381 caagggtctt gttacatatt acttggcatg atttatgtaa tttaaaaaaa ttgtttgttt
1441 ttcaaataga aaagtaaaat aacgaatatg cttttccaat aacataatcc ccttctcact
1501 tgagaatttt cctctaaaaa gatatgctag atttatttca tgctttatgt gcctctgggtg

1561 tgtccctta taacctcctc catatcattt agggatggtc tcagctgcaa gtaagaactg
 1621 ccacaacagg tgatgtaagc ccaaaaaaaaa aaaaaaaaaa aaagcaaagc caagcaaaac
 1681 aaagcccat taaattattc ccataataat aagtctggga gaaagaagat tccagagtgtg
 1741 gctcagcagc ttagtgacag caaggcccta ggctggcatt ttcttggcct tcccgatggt
 1801 cccaagatga ctctcatggc ctcaaacatc acttcctcac atcctgtcag ggagaaagag
 1861 gcaagtgagc aacaacaatt tgtggtgttt ggatcatttg tcagagagga agaacttcc
 1921 taaaaactcc gcctctgctg tttagacatc tcactctatt ccttggccat ggtggtatct
 1981 catggtcact cctctatctg ccactgtaaa gaggaactgg attgctatat tctgcttaga
 2041 cacatgagga tgcagcccac ctccacagaa catgtgcgga attagatttc tacaacacac
 2101 tttgtcttgc ttctgcccac ctctctcact agaatgcaca ttccataggg gcaaacattt
 2161 ttgtctattt tgttcacagc tatattctca acacctagaa gagtgacaga aattcaataa
 2221 atagttgtta agtgagcaaa tgaatgcatt aataaggaaa agggtagatg gctattgagt
 2281 aggtaaccag cagtgttgat caccccaac agcatacaac tccagtctga tgaacatcat
 2341 gctactaagt ggccactcat cacccaagtc tctgacctta cttttctctc cttttctccc
 2401 agggagttag ccataactgg cggctgctct tgcgccaatg

(2) INFORMATION FOR SEQ ID NO:2711:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1654 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2711

1 ccaatgagcc tccccaatc ctctgcctc ttagaagaca agatgtgtga gggcaacaag
 61 accactatgg ccagccccc gctgatgccc ctgggtggtg tectgagcac tatctgcttg
 121 gtcacagtag ggctcaacct gctggtgctg tatgccgtac ggagttagcg gaagctccac
 181 actgtgggga acctgtacat cgtcagcctc tcgggtggcg acttgatcgt ggggtccgctc
 241 gtcagccta tgaacatcct ctacctgctc atgtccaagt ggtcactggg ccgtcctctc
 301 tgcctctttt ggctttccat ggactatgtg gccagcacag cgtccatttt cagtgtcttc
 361 atcctgtgca ttgatcgcta ccgctctgtc cagcagcccc tcaggtacct taagtatcgt
 421 accaagaccc gagcctcggc caccattctg ggggcctggt ttctctcttt tctgtgggtt
 481 attcccatc taggctggaa tcacttcatg cagcagacct cgggtgcgcg agaggacaa
 541 tgtgagacag acttctatga tgtcacctgg ttcaaggta tgactgcat catcaacttc
 601 tacctgccc ccttgctcat gctctggtt tatgccaaga tctacaaggc cgtacgacaa
 661 cactgccagc accgggagct catcaatagg tccctccctt ccttctcaga aattaagctg
 721 agggcagaga accccaagg ggatgccaag aaaccaggga aggagtctcc ctgggagggtt
 781 ctgaaaagga agccaaaaga tgctggtggt ggatctgtct tgaagtacc atcccaaacc
 841 cccaaggaga tgaatcccc agttgtcttc agccaagagg atgatagaga agtagacaaa
 901 ctctactgct ttccacttga tattgtgcac atgcaggctg cggcagagg gagtagcag
 961 gactatgtag ccgtcaaccg gagccatggc cagctcaaga cagatgagca gggcctgaac
 1021 acacatgggg ccagcgagat atcagaggat cagatgttag gtgatagcca atccttctct
 1081 cgaacggact cagataccac cacagagaca gcaccaggca aaggcaaat gaggagtggg
 1141 tctaacacag gcctggatta catcaagttt acttggaga ggctccgctc gcattcaaga
 1201 cagtatgtat ctgggttgca catgaaccgc gaaagggaag ccgccaaca gttgggtttt
 1261 atcatggcag ccttcatcct ctgctggatc ccttatttca tcttcttcat ggtcattgcc
 1321 ttctgcaaga actgttgcaa tgaacatttg cacatgttca ccatctggct gggctacatc
 1381 aactccacac tgaacccct catctacccc ttgtgcaatg agaacttcaa gaagacattc
 1441 aagagaattc tgcataattc ctctaaggg aggtctgag gggatgcaac aaaatgatcc
 1501 ttatgatgtc caacaaggaa atagaggacg aaggcctgtg tgttgccagg caggcacctg
 1561 ggctttctg aatccaaacc acagtcttag gggcttggta gtttggaag ttcttaggca
 1621 ccatagaaga acagcagatg gcggtgatca gcag

(2) INFORMATION FOR SEQ ID NO:2712:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1742 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2712

1 atgagcctcc ccaattcctc ctgcctctta gaagacaaga tgtgtgaggg caacaagacc
 61 actatggcca gcccccagct gatgccctg gtggtggtcc tgagcactat ctgcttggtc
 121 acagtagggc tcaacctgct ggtgctgtat gccgtacgga gtgagcggaa gctccacact
 181 gtggggaacc tgtacatcgt cagcctctcg gtggcgagct tgatcgtggg tgccgtcgtc

241 atgcctatga acatcctcta cctgctcatg tccaagtggt cactgggccc tctctctgc
301 ctcttttggc tttccatgga ctatgtggcc agcacagcgt ccattttcag tgtcttcac
361 ctgtgcattg atcgctaccg ctctgtccag cagccctca ggtaccttaa gtatcgtaac
421 aagacccgag cctcgccac cttctgggg gcttggttc tctctttct gtgggttatt
481 cccattctag gctggaatca cttcatgcag cagacctcg tgcgcgaga ggacaagtgt
541 gagacagact tctatgatgt cacctgggtc aaggtcatga ctgccatcat caacttctac
601 ctgcccacct tgctcatgct ctggttctat gccaaagatc acaaggcgt acgacaacac
661 tgccagcacc gggagctcat caatagggtc cctccctcct tctcagaaat taagctgagg
721 ccagagaacc ccaaggggga tgccaagaaa ccagggaagg agtctccctg ggaggttctg
781 aaaaggaagc caaaagatgc tgggtgtgga tctgtcttga agtcaccatc ccaaaccccc
841 aaggagatga aatccccagt tgtcttcagc caagaggatg atagagaagt agacaaactc
901 tactgctttc cacttgatat tgtgcacatg caggctgcg cagaggggag tagcagggac
961 tatgtagccg tcaaccggag ccatggccag ctcaagacag atgagcaggg cctgaacaca
1021 catggggcca gcgagatc agaggatcag atgttaggtg atagccaatc cttctctcga
1081 acggactcag ataccaccac agagacagca ccaggcaaa gcaaattgag gagtgggtct
1141 aacacaggcc tggattacat caagtttact tggaaaggcc tccgctcgca ttcaagacag
1201 tatgtatctg ggttgacat gaaccgcgaa aggaaggccg ccaaaccagt ggggtttatc
1261 atggcagcct tcatcctctg ctggatccct tatttcattc tcttcattgt cattgccttc
1321 tgcaagaact gttgcaatga acatttgcac atgttcacca tctggctggg ctacatcaac
1381 tccacactga accccctcat ctacccttg tgcaatgaga acttcaagaa gacattcaag
1441 agaattctgc atattcgctc ctaaggagg ctctgagggg atgcaacaaa atgactctta
1501 tgatgtccaa caaggaaata gaggacgaag gcctgtgtgt tgccaggcag gcacctgttc
1561 tttctggaat ccaaacacac gtcttagggg cttggtagtt tggaaagttc ttaggcacca
1621 tagaagaaca gcagatggcg gtgatcagca gagagattga actttgagga ggaagcagaa
1681 tctttgcaag aaagtcagac ctgtttcttg taactgggtt caaaaagaaa aaaaaaaaaa
1741 aa

(2) INFORMATION FOR SEQ ID NO:2713:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5836 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2713

1 atcttggtg atatgggtgaa acccatctc tactaaaaat acaaaaatta gctgggcgtg
61 gtggtgggag catgtaatcc cagctactca ggaggctgag gcaggagaat tacttgaacc
121 tgggaggcag aggttgacgt gaaccgagat cgcgccattg cactccagtc tggcgacaga
181 gcgagactcc gtctctaaat aaataaataa ataaatttag cttctactc aagaacttat
241 ctggcctttgt cttaatgtaa aaataatttc ttttgctaa attattgaga gaaatttact
301 atttattagt gtttatcagt tttctttaa ctcaccactt tttgatgaat atgaaaatct
361 aaaaacttgg ccgggcgcag tggctcacac ctgtaatctc agcactttgg gaggccaagg
421 tgggcggatc atctgaggtc aggagttcaa gatcagcctg accaactggt tgaacccct
481 tctctactaa aaatacaaaa attagctggg cgtggtggtg ggtgcctgta attgtagcta
541 cttgggaggc tgaggcatga gaatcacttg aaccagaaaa gcagagggtg cagtgaactg
601 agatggtgcc actgcactcc agcctgggtg acagagtgag actctgtcct aaaaaaaaaa
661 aaaaaaaaaa tggctgggag tgggtgcctc tgcctgtaat ccagcactt tgggagcca
721 gcgtgggtg atcacctgag gtcaggagtt caagtccagc ctgaccaaca tgggtgaaacc
781 ccgtctctac taaaaagta caaaaaaat agccgggtgt ggtggcacac tctgtaatc
841 ccagctactc aggaggctga ggcaggagaa tcacttgaat ttgggagctg gagattgtag
901 tcagccaaga tgggtccatt gcactccagt ctgggtgaca gagtgaact ccattctaaa
961 aaaaaaaaaa aaatcttaaa aactccttc agaagattta atacttactt tcaccaaac
1021 acccgacttg agtatacca ataacagagg atacagtcgg ttttcagtag agccttagta
1081 gcaaagggtt ttcattttta ttttcagat acaggatctt gccctgtcac ccaagctgga
1141 gtgcagtgat gtgatcatag ctctctgag cctcctgagt agctaggact ataggtgtat
1201 tataggacaa tttttaaaaa atttcattgt aaagacagga ttcactgtg ttgccaggc
1261 tgcaagtctt ggcctcaagt gatcattcca ccttaactc ttgccctcaa gcagtcctc
1321 cacctcagac tcccaaaatg ctgggattat ggtgtgtagc caccatttcc agcctactag
1381 caagggtctt gttacatatt acttggcatg atttatgtaa tttaaaaaaa ttgtttgtt
1441 tccaataga aaagtaaaat aacgaatatg ctttccaat aacataatcc ccttctact
1501 tgagaatttt cctctaaaaa gatattgctag atttatttca tgctttatgt gcctctggtg
1561 tgtcccctta taacctcctc catatcattt agggatggtc tcagctgcaa gtaagaactg
1621 ccacaacagg tgatgtaagc caaaaaaaa aaaaaaaaaa aaagcaaac caagcaaac

1681 aaagccatt taattatttc ccataataat aagtctggga gaaagaagat tccagagtgtg
1741 gctcagcagc ttagtgcag caagcccta ggctggcatt ttcttgccct tcccgatggg
1801 cccaagatga ctctcatggc ctcaaacatc acttctctcac atctgtgcag ggagaaagag
1861 gcaagtgcagc aacaacaatt tgtggtgttt ggatcatttg tcagagagga agaactgtcc
1921 taaaaactcc gcctctgtctg tttgacatcc tcactctatt ccttggccat ggtggtatct
1981 catggtcact cctctatctg ccactgtaaa gaggaactgg attgctatat tctgcttaga
2041 cacatgagga tgcagccac ctccccagaa catgtgcgga attagatttc tacaacaca
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2161 ttgtctattt tgttcacagc tatattctca acacctagaa gactgcagaa aattcaataa
2221 atagtgtgta agtgagcaaa tgaatgcatg aataaggaaa aggtacatg gctattgagt
2281 aggttaaccag cagtgttgat ccccccaac agcatacaac tccagtctga tgaacatcat
2341 gctactaagt ggccactcat cacccaagtc tctgacctta cttttctctc cttttctccc
2401 agggagttag ccataactgg cggctgctct tgcgccaatg
1 ccaatgagcc tcccaatttc ctctgctctc ttagaagaca agatgtgtga gggcaacaag
61 accactatgg ccagcccccac gctgatgcc ctggtggtgg tctgtgacac tatctgcttg
121 gtcacagtag ggctcaacct gctggtgctg tatgccgtac ggagtgcagc gaagctccac
181 actgtgggga acctgtacat cgtcagccctc tgggtggcgg acttgatcgt ggtgcccgtc
241 gtcactgcta tgaacatcct ctacctgctc atgtccaagt ggctactggg ccgtcctctc
301 tgcctctttt ggctttccat ggactatgtg gccagcacag cgtccatttt cagtgtcttc
361 atctgtgca ttgatcgcta ccgctctgtc cagcagcccc tcaggtacct taagtatcgt
421 accaagaccg gagcctcgcc caccattctg ggggctggg ttctctcttt tctgtgggtt
481 attcccattc taggctgaa tcacttcatg cagcagacct cgggtgcgag agaggacaag
541 tgtgagacag acttctatga tgtcacctgg ttcaaggcca tgaactgcat catcaacttc
601 tactgcccac ccttgcctcat gctctggttc tatgccaaga tctacaaggc cgtacgacaa
661 cactgcccag accgggagct catcaatagg tccctccctt ccttctcaga aattaagctg
721 aggcagaga accccaagg ggatgccaa aaaccaggga aggagtctcc ctgggaggtt
781 ctgaaaagga agccaaaaga tgggtggtg ggatctgtc tgaagtacc atcccaaac
841 cccaaggaga tgaatcccc agttgtcttc agccaaggag atgatagaga agtagacaaa
901 ctctactgct ttccacttga tattgtgcac atgcaggctg cggcagaggg gagtgcagg
961 gactatgtag ccgtcaaccg gagccatggc cagctcaaga cagatgagca gggcctgaac
1021 acacatgggg ccagcgagat atcagaggat cagatgttag gtgatagcca atccttctct
1081 cgaacggact cagataccac cacagagaca gcaccaggca aaggcaaat gaggagtggg
1141 tctaacacag gcctggatta catcaagttt acttggaaga ggctccgctc gcattcaaga
1201 cagtatgtat ctgggttgca catgaaccgc gaaagggaag ccgccaacaa gttgggtttt
1261 atcatggcag ccttcatcct ctgctggatc ccttatttca tcttctctat ggtcattgac
1321 ttctgcaaga actgttgcaa tgaacattg cacatgttca ccatctggct gggctacatc
1381 aactccacac tgaacccct catctacccc ttgtgcaatg agaactcaa gaagacattc
1441 aagagaattc tgcattatcg ctctaaggg aggtctctgag gggatgcaac aaaatgatcc
1501 ttatgatgtc caacaaggaa atagaggacg aaggcctgtg tgttgccagg caggcacctg
1561 ggctttctgg aatccaaacc acagtcttag gggcttggtg gtttggaag ttcttaggca
1621 ccatagaaga acagcagatg gcggtgatca gcag
1 atgagcctcc ccaattcctc ctgctcttca gaagacaaga tgtgtgaggg caacaagacc
61 actatggcca gccccagct gatgcccctg gtggtggtcc tgagcactat ctgcttggtc
121 acagttaggg tcaacctgct ggtgctgtat gccgtacgga gtgagcgga gctccacat
181 gtggggaacc tgtacatcgt cagcctctcg gtggcgact tgatcgtggg tgcgctcgtc
241 atgcctatga acatcctcta cctgctcatg tccaagtggg cactgggccc tctctctg
301 ctcttttggc ttccatgga ctatgtggcc agcacagcgt ccattttcag tgtcttcatc
361 ctgtgcattg atcgctaccg ctctgtccag cagcccctca ggtaccttaa gtatcgtacc
421 aagaccgag cctcgccac cattctgggg gcctggttct tctcttttct gtgggttatt
481 cccattctag gctggaatca ctctatgcag cagacctcgg tgcgcccaga ggacaagtgt
541 gagacagact tctatgatgt cacctggttc aaggctcatga ctgccatcat caacttctac
601 ctgcccacct tgcctatgct ctggttctat gccaatctt acaaggccgt acgacaacac
661 tgccagcacc gggagctcat caataggtcc ctcccttctt tctcagaaat taagctgagg
721 ccagagaacc ccaaggggga tgccaagaaa ccagggaagg agtctccctg ggaggttctg
781 aaaaaggaag ccaaaagatgc tgggtggtga tctgtcttga agtcaccatc ccaaaccccc
841 aaggagatga aatccccagt tgtcttcagc caagaggatg atagagaagt agacaaactc
901 tactgctttc cacttgatat tgtgcacatg caggctgcgg cagaggggag tagcagggac
961 tatgtagccg tcaaccggag ccatggccag ctcaagacag atgagcaggg cctgaacaca
1021 catggggcca gcgagatata agaggatcag atgttaggtg atagccaatc cttctctcga
1081 acggactcag ataccaccac agagacagca ccaggcaagg gcaaatgag gagtgggtct
1141 aacacaggcc tggattacat caagtttact tgggaaggcc tccgctcgca ttcaagacag
1201 tatgtatctg ggtgacat gaaccgcgaa aggaaggccg ccaaacagtt ggggttttatc

[illegible]

(i) SEQUENCE CHARACTERISTICS:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2714

403254.1
73999/01905

2701 cgtaagacaa agtgtagttt tgtatacaga gaagaaaacc tcaagtaata ggcatttttaa
 2761 gtaaaagtct acctgtgttt ttttctaaaa aggctgtctca caagttctat ttcttgaaaga
 2821 ataaattcta cctccttggtg ttgcactgaa cagggttctct tcctggcatc ataaggaggtt
 2881 ggtgtaatca ttttaaattc cactgaaaat ttaacagtat ccccttctca tcgaagggat
 2941 tgtgtatctg tgcttctaata attagttggc ttccataaat catgttggtg tgtgtatatg
 3001 tatttaagat gtacatttaa taatatcaaa gagaagatgc ctgttaattt ataattgtatt
 3061 tgaaaattac atgttttttc atttgtaaaa atgagtcatt tgtttaaaca atctttcatg
 3121 tcttgtcata caaatttata aaggctctgca ctccctttatc tgtaattgta attccaaaaat
 3181 ccaaaaagct ctgaaaacaa ggtttccata agcttggtga caaaattcat ttgcttgcaa
 3241 tctaattctga actgaccttg aatcttttta tcccatttag tgtgaatatt cctttatttt
 3301 gctgcttgat gatgagaggg agggctgctg ccacagactg tggtaggggc tggtaattgt
 3361 agtatgggat atgcacaaaa ctacttttct aaaatctaaa atttcataat tctgaaacaa
 3421 cttgccccaa gggtttcaga gaaaggactg tggacctcta tcatctgcta agtaatttag
 3481 aagatattat ttgtcttaaa aaatgtgaaa tgcttttata ttctaatagt ttttcacttt
 3541 gtgtattaaa tggtttttaa attaaaaaaa aaaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2715:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3058 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2715

1 gcccgcggtta agattccgcg attttaatgt ttccaggggg gtgtcatagc cccggggttg
 61 gccgcccag ccccgccctc cccgcccgg ggagcccgc ccttcccgc cgtccctgcc
 121 gacagagtta gcacgacatc agtatgagct ggtaacctc cctgacaacg cagacatgtg
 181 gggcctggga aatgaaagag cgcttggtga cagggggatt tggaaatgtc atccgatggc
 241 acaatcagga aacaggtgag cagattgcca tcaagcagtg ccggcaggag ctccagcccc
 301 ggaaccgaga gcggtggtgc ctggagatcc agatcatgag aaggctgacc caccccaatg
 361 tgggtggtgc ccgagatgtc cctgagggga tgcagaactt ggcgcccatt gacctgcccc
 421 tgctggccat ggagtactgc caaggaggag atctccgaa gtacctgac cagtttgaga
 481 actgctgtgg tctgcgggaa ggtgccatcc tcaccttgct gagtgcatt gcctctgcgc
 541 ttagatacct tcatgaaaac agaatacacc atcgggatct aaagccagaa aacatcgctc
 601 ttcagcaagg agaacagagg ttaatacaca aaattattga cctaggatat gccaaaggagc
 661 tggatcaggg cagtctttgc acatcattcg tggggaccct gcagtacctg gccccagagc
 721 tactggagca gcagaagtac acagtaccgc tcgactactg gacttccggc accctggcct
 781 ttgagtgcac caggggcttc cggcccttcc tccccaaatg gcagcccgtg cagtggcatt
 841 caaaagtgcg gcagaagagt gaggtggaca ttgttgtag cgaagacttg aatggaacgg
 901 tgaagttttc aagctcttta cctaccacca ataattctaa cagtgtctcg gctgagcgac
 961 tggagaagtg gctgcaactg atgctgatgt ggcaccccgc acagaggggc acggatccca
 1021 cgtatgggcc caatggctgc ttcaaggccc tggatgacat cttaaaacta aagctgggtc
 1081 atatcttgaa catggtcacg ggcaccatcc acacctaccc tgtgacagag gatgagagtc
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 1861 gactaaggga aaaacctcga gaccagcgaa ctgagggtga cagtcaggaa atggtacggc
 1921 tgctgcttca ggcaattcag agcttcgaga agaaagtgcg agtgatctat acgcagctca
 1981 gtaaaactgt gggttgcaag cagaaggcgc tggaactgtt gcccaagggtg gaagagggtg
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 2221 cggcctccaa cagcttacct gagccagcca agaagagtga agaactggtg gctgaagcac
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2341 gtttcaacggc cctagactgg agctgggttac agacggaaga agaagagcac agctgcctgg
 2401 agcaggcctc atgatgtggg gggactcgac cccctgacat ggggcagccc atagcaggcc
 2461 ttgtgcagtg ggggactcg acccctgac atggggctgc ctggagcagg ccgcgtgacg
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 2821 gtccaattca aatctttcag ggcagagtcc gagcagcgt tggtagacag ctgtcctctc
 2881 ctgtctcca aaggccctgc tccctgtcct ctctcacttt acagcttggt tttctctgg
 2941 attcagcttc tctaaacag acagttta ttagttggt gcctggccc atcctcactt
 3001 cctcttttta tttcactgct gctaaaattg tgtttttacc tacaaaaaaa aaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2716:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1994 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2716

1 ggacagagca tggcccttgt gatccaggtg gggaaactaa ggcccagaga agtgaggacc
 61 ccgcagacta tcaatcccag tctcttcccc tcaactccctg tgaagctctc cagcatcatc
 121 gaggtcccat cagcccttgc cctgttgat gaataggcac ctctggaaga gccaaactgtg
 181 tgagatggtg cagcccagtg gtggcccggc agcagatcag gacgtactgg gcgaagagtc
 241 tctctctggg aagccagcca tctgcacct gccttcagaa cagggcgctc ctgagaccct
 301 ccagcgtgc ctggaggaga atcaagagct ccgagatgcc atccggcaga gcaaccagat
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 421 gttcctcatg tgcaagtcc aggaggccag gaaactggtg gagagactcg gcctggagaa
 481 gctcgatctg aagaggcaga aggagcaggc tctgcgggag gtggagcacc tgaagagatg
 541 ccagcagcag atggctgagg acaaggcctc tgtgaaagcc caggtgacgt ccttgctcgg
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 1141 gcagctggag cagctgcaga gggagtacag caaactgaag gccagctgtc aggagtcggc
 1201 caggatcgag gacatgagga agcggcatgt cgaggtctcc cagggccctc tggcccccgc
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 1321 gccacctgac ttctgtgtc ccaagtgcga gtatcaggcc cctgatatgg acacctgca
 1381 gatacatgtc atggagtga ttgagtagg ccggccagtg caaggccact gcctgccga
 1441 ggacgtgccc gggaccgtgc agtctgcgt tctctctccc gcctgcctag cccaggatga
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 1681 taatccctcc ctcttctcc acccgcaact ggggaagtca agaattgggc ctgggctct
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 1801 acccgcccgc cgtgtgccc tggagtgtc gccctcttac catgcacacg ggtgtctctc
 1861 ttttgggctg catgtattc cattttcag ccagaccgat gtgtatttaa ccagtcacta
 1921 ttgatggaca tttgggtgt tccccatct tttgttacca taaataatgg catagtaaaa
 1981 aaaaaaaaaa aaaa

(2) INFORMATION FOR SEQ ID NO:2717:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8631 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2717

1 caccgctccg cgagaaggag gactcgcaag cctcggcggc ccggaaccgg cctcggactg
61 tcgacggaac ctgagggcgc ttgccctccc gccccatgga ggggccccg gggctgcggc
121 cgggcgcggg cgggccctgg gagatgcggg agcggctggg caccggcggc ttccgggaacg
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661 cccagagct ctttgagaat aagccttaca cagccactgt tgattattgg agctttggga
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1021 atttgaagat agtacacatc ctaaatatga cttctgcaa gataatttct tttctgttac
1081 cactgatga aagtcttcat tcaactacgt ctctgattga gcgtgaaact ggaataaata
1141 ctggttctca agaacttctt tcagagacag gaatttctct ggatcctcgg aaaccagcct
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1501 tgatctcagc atcacaacaa ctgaaagcta aattggagtt ttttcacaaa agcattcagc
1561 ttgacttgga gagatacagc gacgatga cgtatgggat atcttcagaa aaaatgctaa
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1981 tcagtaatat caaagaagct gacaatactg tcattgtcat gcagggaata aggcagaaag
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2401 cccccatgaa accattcttc agacatcagt caatggaaga aatggctatg aacagaaact
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 1081 cttccaggct gagaggcagg cccgggagaa gctggccgag aagaaggagc tcctgcagga
 1141 gcagctggag cagctgcaga gggagtacag caaactgaag gccagctgtc aggagtcggc
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 1801 acccgccgcg cgctgtgccc tgggagtgtc gccctcttac catgcacacg ggtgtctctc
 1861 ttttgggctg catgtctatt cattttgcag ccagaccgat gtgtatttaa ccagtcacta
 1921 ttgatggaca tttgggttgt tcccactct tttgttacca taaataatgg catagtaaaa
 1981 aaaaaaaaaa aaaa

(2) INFORMATION FOR SEQ ID NO:2718:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1589 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2718

1 gaattcctct ggtcctcatc caggtgcgcg ggaagcaggt gcccaggaga gaggggataa
 61 tgaagattcc atgctgatga tcccaaagat tgaacctgca gaccaagcgc aaagtagaaa
 121 ctgaaagtac actgctggcg gatcctacgg aagttatgga aaaggcaaa cgcagagcca
 181 cgccgtagtg tgtgcccggc cccttgggat ggatgaaact gcagtcgagg cgtgggtaag
 241 aggaaccagc tgcagagatc accctgcccc acacagactc ggcaactccg cggaaagacca
 301 gggctcctgg agtgactatg ggcggtgaga gcttgctcct gctccagttg cggtcacat
 361 gactacgccc gcctcccgcg gacctgttc catgtttctt ttaggtatat ctttggactt
 421 cctcccctga tccttgttct gttgccagta gcatcatctg atttgtatat tgaaggtaaa
 481 gatggcaaac aatatgagag tgttctaatt gtcagcatcg atcaattatt ggacagcatg
 541 aaagaaattg ttagcaattg cctgaataat gaatttaact tttttaaaag acatatctgt
 601 gatgctaata aggaaggatg gtttttatcc cgtgctgctc gcaagttgag gcaatttctt
 661 aaaatgaata gcaactggtg ttttgatctc cacttattaa aagtttcaga aggcacaaca
 721 atactgttga actgcactgg ccaggttaaa ggaagaaaac cagctgccct ggggtgaagcc
 781 caaccaacaa agagtttgga agaaaaataa tctttaaagg aacagaaaaa actgaatgac
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 1381 tgttttagag ttaacaatga tatatggata atgccggtga gaataagaga gtcataaacc
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 1501 ttaatcatga atgtgtaaca cagtgccttc aataaatggt atagcaaatg ttttgacatg
 1561 aaaaaaggac aatttcaaaa aaataaaat

(2) INFORMATION FOR SEQ ID NO:2719:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 141589 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2719
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301 gatctgggat ctggctacag gatgtgttgg ttgtaaaaat gcattttttt atatctagct
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481 gtcattttaca agtaggaaaa ttcacagggg aagtttagagt ataaaaatcca gaatgaaggt
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601 agaagtctca gcattgtgtc tttttcatgt atcttacaag aagacagcat gtgcttctaa
661 cactgatac attgtatcta ccagcacttg gtaaacagaa aagaaccaca ttttcttgt
721 aggagaaatt tgggtgcctat ttctaccag gcaccaataa gtgggaccaa taggtgggat
781 taaagatata gtagaaagta tttaaaactt gccagggggc aatagtctga aaataagtaa
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901 tgagcccta gagacttttc tgtctgttac tgtttcttca ttctcatct gcagagccag
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(2) INFORMATION FOR SEQ ID NO:2720:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 533 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2720

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(2) INFORMATION FOR SEQ ID NO:2721:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4740 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2721

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(2) INFORMATION FOR SEQ ID NO:2722:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1774 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2722

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(2) INFORMATION FOR SEQ ID NO:2723:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7047 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2723

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121 cctggcccggt attaatgttt agaacacgaa ttccaggagg caggctaagt ctattcagct
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(2) INFORMATION FOR SEQ ID NO:2724:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 779 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2724

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 361 gaaagtgcag gggaccgccc gtcgggggtg gggcgcgct gccagccctc tgtccactt
 421 ccattgcactt gacctgacc ctccggcctc cgtctgcgat ctcccgctgc ctgaatatga
 481 gccttggaac agaccagac ctccctgccc gcccgctctg agtggccccc ggaccgccc
 541 ccattcttgg ccccgagccc ctgctctctt gccgctcca gggtcggggg tcaggccagg
 601 aaagccctt gggaagcccc cgggagcag ctggagcggg gtcgcccggc ggcgggaagg
 661 agtgggcgcc tctatttaag cggttcccc gcggcctcgg gacagagggg actgagcatg
 721 gatttcggac tggccctcct gctggcgggg cttctggggc tcctcctcgg tgagaagg

(2) INFORMATION FOR SEQ ID NO:2725:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1598 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2725

1 atggatttcg gactggccct cctgctggcg gggcttctgg ggctcctcct cggccagctc
 61 ctccaggtag agccccctgca ggtggagccc ccggagccgg tgggtggcgt ggccttggg
 121 gcctcgccgc agctcacctg ccgcttgccc tgccgggacc gcggggcctc ggtgagtg
 181 cggggcttgg acaccagcct gggcgcggtg cagtcggaca cgggccgcag cgtcctcacc
 241 gtgcgcaacg cctcgctgct ggcggccggg acccgcggtg gcgtgggctc ctgcccggg
 301 cgcaccttcc agcacaccgt gcagctcctt gtgtacgctt tcccgagcca gctgaccgtc
 361 tccccagcag ccctggtgcc tggtagcccg gaggtggcct gtacgcccc aagagtcacg
 421 cccgtggacc ccaacgcgct ctcttctcct ctgctcgctg ggggcccagg actggagggg
 481 gcgcaagccc tgggcccggg ggtgcaggag gaggaggagg agccccagg ggacgaggac
 541 gtgctgttca gggtagacga gcgctggcgg ctgcccggcc tggggacccc tgtcccggc
 601 gccctctact gccaggccac gatgaggctg cctggcttgg agctcagcca ccgcccaggc
 661 atccccgtcc tgcacagccc gacctcccc gagectccc acaccacctc cccggagcct
 721 cccaacacca cctccccgga gtctcccgac accacctccc cggagtctcc cgacaccac
 781 tcccaggagc ctcccagac cactcccag gacgtccc acaccacctc ccaggagcct
 841 cccgacacca cctccccgga gcctcccgac aagacctccc cggagccgcg ccccagcag
 901 ggctccacac acacccccag gagcccaggc tccaccagga ctgcccggc tgagatctcc
 961 caggctgggc ccacgcagg agaagtgat ccaacaggct cgtccaaacc tgcgggtgac
 1021 cagctgcccc cggtctctgt gaccagcagt gcggtgctgg gactgctgct cctggcctt
 1081 cccacgtatc acctctggaa acgctgccc cactggctg aggacgacac ccacccacca
 1141 gcttctctga ggtctctgcc ccagggtgct gcctgggctg ggttaagggg gaccggccag
 1201 gtccggatca gccctcctg agtggccagc ctttccccct gtgaaagcaa aatagcttgg
 1261 acccttcaa gttgagaact ggtcagggca aacctgcctc ccattctact caaagtcac
 1321 cctctgctca cagagatgga tgcattgtct gattgcctct ttggagaagc tcatcagaaa
 1381 ctcaaaaagaa ggccactgtt tgtctcact acccatgacc tgaagccct cctgagtg
 1441 tccccacctt tctggacgga accacgtact tttacatac attgattcat gtctcacg
 1501 tccctaaaaa tgcgtaagac caagctgtgc cctgaccacc ctggggccct gtcgtagga
 1561 cctcctgagg ctttggcaaa taaacctcct aaaatgat

(2) INFORMATION FOR SEQ ID NO:2726:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 350 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2726

```
1 tccatcacag ccttcccgga ccagctgacc gtctccccag cagccctggt gcctggtgac
61 ccgaggttg cctgtacggc ccacaaagtc acgcccgtgg accccaacgc gctctccttc
121 tccctgctcg tcgggggcca ggaactggag ggggcgcaag ccttgggccc ggaggtgcag
181 gaggaggagg aggagcccca gggggacgag gacgtgctgt tcagggtgac agagcgctgg
241 cggctgccgc ccttggggac cctgtcccgc ccgcccctct actgccaggc cacgatgagg
301 ctgcctggct tggagctcag ccaccgccag gccatccccg gtgagtcgcg
```

(2) INFORMATION FOR SEQ ID NO:2727:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 305 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2727

```
1 gtcgccgag gccagtccct ccaggtgaag ccctgcagg tggagcccc ggagccggtg
61 gtggccgtgg ccttggggcg ctcgcgccag ctcacctgcc gcctggcctg cgcggaccgc
121 ggggcctcgg tgcaagtggc gggcctggac accagcctgg gcgcggtgca gtcggacacg
181 gggcgacgag tcctcaccgt gcgcaacgcc tcgctgtcgg cggccgggac ccgcgtgtgc
241 gtgggctcct gcgggggccc caccttccag cacaccgtgc agctccttgt gtacggtgag
301 gcgtc
```

(2) INFORMATION FOR SEQ ID NO:2728:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 353 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2728

```
1 ctgtttccag tcctgcacag cccgacctcc ccggagcctc ccgacaccac ctccccggag
61 cctcccaaca ccacctcccc ggagtctccc gacaccacct ccccggagtc tcccgcacac
121 acctcccagg agcctcccga caccacctcc caggagcctc ccgacaccac ctcccaggag
181 cctcccga caacctcccc ggagcctccc gacaagacct ccccggagcc cgccccccag
241 cagggtcca cacacacccc caggagccca ggctccacca ggactcgccg ccctgagatc
301 tcccaggctg ggcccacgca gggagaagtg atcccaacag gctgtgagtt ctg
```

(2) INFORMATION FOR SEQ ID NO:2729:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 608 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2729

```
1 ctctccccag cgtccaaacc tgcgggtgac cagctgcccg cggtctgtg gaccagcagt
61 gcggtgctgg gactgtgct cctggccttg cccacgtatc acctctggaa acgtgcccg
121 cacctggctg aggacgacac ccacccacca gcttctctga ggcttctgcc ccaggtgtcg
181 gcctgggctg ggttaaggg gaccggccag gtccggatca gcccctcctg agtgccaggc
241 ctttccccct gtgaaagcaa aatagcttg acccctcaa gttgagaact ggtcagggca
301 aacctgcctc ccattctact caaagtcac cctctgttca cagagatgga tgcattgtct
361 gattgcctct ttggagaagc tcatacagaaa ctcaaaagaa ggccactgtt tgtctcacct
421 acccatgacc tgaagccct cctgagtggt tccccacct tctggacgga accacgtact
481 tttacatac attgattcat gtctcacgtc tccctaaaaa tgcgtaagac caagctgtgc
541 cctgaccacc ctgggccct gtctcagga cctcctgagg ctttgcaaaa taaacctctc
601 aaatgat
```

(2) INFORMATION FOR SEQ ID NO:2730:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1546 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2730

```

1 gggactgagc atggatttcg gactggccct cctgctggcg gggtttctgg ggctcctcct
61 cggccagtc ctcacagtg agccctgca ggtggagccc ccggagccgg tggtagccgt
121 ggcttgggc gctcgcgcc agctcacctg ccgctggccc tgcgcggacc gcggggcctc
181 ggtcagtg cggggcctg acaccagcct gggcgcggtg cagtcggaca cggggccgag
241 cgtcctcacc gtgcgcaacg cctcgtgtgc ggccggccgg acccgcgtgt gcgtgggctc
301 ctgcgggggc cgcaccttcc agcacaccgt gcagctcctt gtgtacgcct tcccggacca
361 gctgaccgtc tccccagcag ccctgggtgcc tggtagcccg gaggtggcct gtacggccca
421 caaagtcacg ccctgggacc ccaacgcgtc ctcttctctc ctgctcgtcg ggggccagga
481 actggagggg gcgcaagccc tgggcccgga ggtgcaggag gaggaggagg agccccaggg
541 ggacgaggag gtgctgttca gggtagaca gcgtggcggt ctgccgcccc tggggacccc
601 ggtcccgccc gccctctact gccaggccac gatgaggctg cctggcttgg agctcagcca
661 ccgcccaggc atccccgtcc tgcacagccc gacctccccg gagcctcccg acaccacctc
721 cccggagtct cccgacacca cctccccgga gtctcccgc accacctccc cggagcctcc
781 cgacaccacc tccccggagc ctcccagaaa gacctccccg gagccccccc ccagcaggg
841 ctccacacac acccccagga gccagggtc caccaggact cgccgccttg agatctccca
901 ggctggggcc acgaggagg aagtgtatcc aacaggctcg tccaaacctg cgggtgacca
961 gctgcccgcg gctctgtgga ccagcagtc ggtgctggga ctgctgtctc tggccttgcc
1021 cactgtatcac ctctggaac gctgcggca cctggctgag gacgacccc acccaccagc
1081 ttctctgagg ctctgcccc aggtgtcggc ctgggctggg ttaaggggga cgggccaggt
1141 cgggatcagc cctcctgtag tggccagcct tccccctgt gaaagcaaaa tagcttgagc
1201 cccttcaagt tgagaactgg tcagggcaaa cctgcctccc attctactca aagtcatccc
1261 tctgttcaca gagatggatg catgttctga ttgcctctt ggagaagctc atcagaaact
1321 caaagaagg cactgtttg tctacacct ccatgacctg aagccccctc ctgagtggtc
1381 cccacctttc tggacggaac cactgtatt ttacatacat tgattcatgt ctacgtctc
1441 cctaaaaatg cgtaaagaca agctgtgccc tgaccacctt gggccctgtg cgtcaggacc
1501 tcttgaggct ttggcaata aacctcctaa aatgataaaa aaaaaa

```

(2) INFORMATION FOR SEQ ID NO:2731:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5539 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2731

```

1 ctgcagctcc ggaacggggg ggggctgctc tccaccgccc ctgtgcggcc gcccgggaaa
61 gtgcaggcgg gccggggcgg gtggctcacg cctgtgatct cagcactttg ggaggccgag
121 gtgggcggat cactgaggt cgggagttcg aggcagcctt gccaaactat gagaaacctt
181 gtctctacta aagatacaaa attagccagg cgtgggtgac catgcctgta atcccagcta
241 ctggagtggc tgaaggcagg gaatcgcttg agcccgggag acagaggttg cggtagctg
301 agatcgaccc attgcactcc agcctgggca acaagagcga aactcagaaa aaaaagaaaa
361 gaaagtgcag gggaccgccc gtcgggggtg gggcgccgct gccacgcctc tgtccacctt
421 ccattgcactt gacctcgacc ctcggcctc cgtctgcgat ctctccgtgc ctgaatatga
481 ggcttggaac agaccagac ctctctgctt gccctgctg agtggccccg ggaccccgcc
541 ccattcttgg cccccagccc ctgcctctct gccgcctcca gggctcgggg tcaggccagg
601 aaagccctt ggaagcccc cggggagcag ctggagcggg gtcgcccggg ggcgggaagg
661 agtggggccc tctatttaag cggttcccc gcggcctcgg gacagagggg actgagcatg
721 gatttcggac tggccctcct gctggcgggg cttctggggc tctcctcctg tgagaaggg
1 atggatttcg gactggccct cctgctggcg gggtttctgg ggctcctcct cggccagtcc
61 ctccaggtga agccctgca ggtggagccc ccggagccgg tggtagccgt ggccttgggc
121 gctcgcgcc agctcacctg ccgctggccc tgcgcggacc gcggggcctc ggtgacgtgg
181 cggggcctgg acaccagcct gggcgcggtg cagtcggaca cgggcccag cgtcctcacc
241 gtgcgcaacg cctcgtgtgc ggccggccgg acccgcgtgt gcgtgggctc ctgcgggggc
301 cgcaccttcc agcacaccgt gcagctcctt gtgtacgcct tcccggacca gctgaccgtc
361 tccccagcag ccctgggtgcc tggtagcccg gaggtggcct gtacggccca caaagtcacg
421 ccctgggacc ccaacgcgtc ctcttctctc ctgctcgtcg ggggccagga actggagggg
481 gcgcaagccc tgggcccgga ggtgcaggag gaggaggagg agccccaggg ggacgaggac
541 gtgctgttca gggtagacga gcgtggcggt ctgccgccc tggggacccc tgtcccgc
601 gccctctact gccaggccac gatgaggctg cctggcttgg agctcagcca ccgccaggcc
661 atccccgtcc tgcacagccc gacctccccg gacctccccg acaccacctc cccggagcct
721 cccaacacca cctccccgga gtctcccgc accacctccc cggagtctcc cgacaccacc
781 tcccaggagc ctcccagacc cactcccgag gacctccccg acaccacctc ccaggagcct

```

841 cccgacacca cctccccgga gctccccgac aagacctccc cggagcccgc cccccagcag
901 ggctccacac acacccccag gagccccagg tccaccagga ctgcgcgccc tgagatctcc
961 caggctgggc ccacgcaggg agaagtgatc ccaacaggct cgtccaaaacc tgcgggtgac
1021 cagctgcccc cggctctgtg gaccagcagt gcggtgctgg gactgctgct cctggccttg
1081 cccactgatc acctctgga acgctgcccg cactggctg aggcagacac ccaccacca
1141 gcttctctga ggcttctgcc ccagggtgtc gctggggctg ggttaagggg gaccggccag
1201 gtcgggatca gccctctctg agtggccagc ctttccccct gtgaaagcaa aatagcttgg
1261 accccttcaa gttgagaact ggtcagggca aacctgcctc ccattctact caaagtcac
1321 cctctgctca cagagatgga tgcattgtct gattgctctc ttggagaagc tcatcagaaa
1381 ctcaaaagaa ggccactgtt tgtctcacct acccatgacc tgaagccctc ccttgagtgg
1441 tccccacctt tctggacgga accacgtact ttttacatac attgattcat gtctcacgtc
1501 tccctaaaaa tgcgtaagac caagctgtgc cctgaccacc ctgggcccct gtctcagga
1561 cctcctgagg ctttggcaaa taaacctcct aaaatgat
1 tccatcacag ctttccccga ccagctgacc gtctccccag cagccctggg gcttggtgac
61 ccgaggtggt cctgtacggc ccacaaagtc acgcccgtgg accccaacgc gctctccttc
121 tccctgctcg tcggggggcca ggaactggag ggggcgcag ccctggggcc ggaggtgacg
181 gaggaggagg aggagcccca gggggacgag gacgtgctgt tcagggtgac agagcgtgg
241 cggctgcccc ccttggggac cctgtcccg ccgcctctct actgccaggc cagcatgagg
301 ctgctgggtc tggagctcag ccaccgccag gccatccccg gtgagtcgcg
1 gtcgcgcgag gccagtcctc ccagggtgaag cccctgcagg tggagccccc ggagccgggtg
61 gtggccgtgg ccttggggcg ctgcgcgacg ctacactgct gcttgccctg cgccgaccgc
121 ggggcctcgg tgcagtggcg ggcctggac accagcctgg gcgcggtgca gtcggacacg
181 ggccgcagcg tctcaccgt gcgcaacgcc tcgctgtcgg cggccgggac ccgctgtgtc
241 gtgggtcctc gcgggggcg cacttccag cacaccgtgc agctcctgt gtacggtgag
301 ggcgc
1 ctgtttccag tctgcacag ccgacctcc ccggagcctc ccgacaccac ctccccggag
61 cctcccaaca ccactcccc ggagtctccc gacaccact ccccgagtc tcccagacc
121 acctccagg agcctccga caccactcc caggagcctc ccgacaccac ctcccaggag
181 cctcccgaca ccactcccc ggagcctccc gacaagacct ccccgagacc cgccccccag
241 cagggtcca cacacacccc caggagccca ggtccacca ggactcgccg ccttgagatc
301 tcccaggctg ggcccacgca gggagaagt atcccaacag gctgtgagtt ctg
1 ctctccccag gctccaaaacc tgcgggtgac cagctgcccg cggctctgtg gaccagcagt
61 gcggtgctgg gactgctgt cctggccttg cccacgtatc acctctggaa acgctgcggg
121 cactgggtg aggcagacac ccaccacca ctttctctga ggcttctgcc ccagggtgtc
181 gcttgggtg ggttaagggg gaccggccag gtcgggatca gcccctctg agtggccagc
241 ctttccccct gtgaaagcaa aatagcttgg accccttcaa gttgagaact ggtcagggca
301 aacctgcctc ccattctact caaagtcac cctctgttca cagagatgga tgcattgtct
361 gattgcctct ttggagaagc tcatcagaaa ctcaaaagaa ggccactgtt tgtctcacct
421 acccatgacc tgaagccctc ccttgagtgg tccccacct tctggacgga accacgtact
481 ttttacatac attgattcat gtctcacgtc tccctaaaaa tgcgtaagac caagctgtgc
541 cctgaccacc ctgggcccct gtctcagga cctcctgagg ctttggcaaa taaacctcct
601 aaaatgat
1 gggactgagc atggatttcg gactggccct cctgctggcg gggtctctgg ggtctcctc
61 cggccagtc ctccagggtg agcccctgca ggtggagccc ccggagccgg tgggtggcgt
121 ggccttgggc gcctcgcgac agctcacctg ccgcctggcg tgcgcggacc gcggggcctc
181 ggtgcagtgg cggggcctgg acaccagcct gggcgcggtg cagtcggaca cggggccgag
241 cgtcctcacc gtgcgcaacg cctcgtgtc ggcggccggg accgcctgtg gcgtgggctc
301 ctgcgggggc cgcaccttcc agcacaccgt gcaactcctt gtgtacccct tcccggacca
361 gctgaccgtc tccccagcag cctgggtgcc tggtagcccg gaggtggcct gtacggccca
421 caaagtacg cccgtggacc ccaacgcgct ctccttctc ctgctcgtcg gggggcaggg
481 actggagggg gcgcaagccc tggggccgga ggtgcaggag gaggaggagg agccccaggg
541 ggacgaggac gtgctgttca ggtgacaga gcgctggcg ctgccgccc tggggacccc
601 tgtccgccc gccctctact gccaggccac gatgaggctg cctggcttgg agctcagcca
661 ccgcccaggc atccccgtc tgcacagccc gacctcccc gagcctccc acaccacctc
721 cccggagtct cccgacacca cctccccgga gtctcccag accacctccc cggagcctcc
781 cgacaccacc tccccggagc ctcccacaa gacctcccc gagcccgccc ccagcaggg
841 ctccacacac acccccagga gccaggctc caccaggact cgccgcctg agatctccca
901 ggctggggcc acgcaggag aagtgatccc aacaggctcg tccaaacctg cgggtgacca
961 gctgcccgcg gctctgtgga ccagcagtgc ggtgctggga ctgctgctcc tggccttgc
1021 cactatcac ccttgaaac cctgcccga cctggctgag gacgacacc acccaccgc
1081 ttctctgagg cttctgcccc aggtgtcggc ctgggctggg ttaaggggga ccggccagg
1141 cgggatcagc cctcctgag tggccagcct tccccctgt gaaagcaaaa tagcttggac

1201 cccttcaagt tgagaactgg tcagggcaaa cctgectccc attctactca aagtcacccc
 1261 tctgttcaca gagatggatg catgttctga ttgcctcttt ggagaagctc atcagaaact
 1321 caaaagaagg ccactgtttg tctcacctac ccatgacctg aagcccctcc ctgagtggtc
 1381 cccacctttc tggacggaac cacgtacttt ttacatacat tgattcatgt ctcacgtctc
 1441 cctaaaaatg cgtaagacca agctgtgccc tgaccaccct gggcccctgt cgtcaggacc
 1501 tcttgaggct ttggcaaata aacctcctaa aatgataaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2732:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1539 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2732

1 ggaattccgg gcccggtctt tctccccgc gccgccggcc tggteccggg gactggcctc
 61 cacgtccgac tegtccgagc tgaagcccag cagcactttg ctgccagccg cggggggcgc
 121 ggaggcgccc ccgggccctc ccaggaggct ctctgggcca gaggccgaga ttccggcacag
 181 gcccccagga gtccgtaagt aggagaggtc gcccgagacc ggccggacc ccatccccgc
 241 ggccgcgcgc gccgctggtc ccgcggtgc gaccgtggcg gctgcgctg gaaaatgtct
 301 caggagagcc ccacgtttcta ccggcaggag ctgaacaaga caatctggga ggtgcccgag
 361 cgttaccaga acctgtctcc agtgggtctt ggcgcctatg gctctgtgtg tgcgtctttt
 421 gacacaaaaa cggggttacg tgtggcagtg aagaagctct ccagaccatt tcagtccatc
 481 attcatgcca aaagaacctc cagagaactg cggttactta aacatatgaa acatgaaaat
 541 gtgattggtc tgttggacgt ttttacacct gcaaggctctc tggaggaatt caatgatgtg
 601 tatctggtag ccacatctcat gggggcagat ctgaacaaca ttgtgaaatg tcagaagctt
 661 acagatgacc atgttcagtt ccttatctac caaattctcc gaggtctaaa gtatatacat
 721 tcagctgaca taattcacag ggacctaaaa cctagtaatc tagctgtgaa tgaagactgt
 781 gagctgaaga ttctggattt tggactggct cggcacacag atgatgaaat gacaggctac
 841 gtggccacta ggtggtacag ggctcctgag atcatgctga actggatgca ttacaaccag
 901 acagttgata tttggtagt gggatgcata atggccgagc tgttgactgg aagaacattg
 961 tttcctggta cagaccatat tgatcagttg aagctcattt taagactcgt tggaaaccca
 1021 ggggctgagc ttttgaagaa aatctcctca gactctgcaa gaaactatat tcagtctttg
 1081 actcagatgc cgaagatgaa ctttgccaat gtattttatt gtgccaatcc cctggctgtc
 1141 gacttgctgg agaagatgct tgtattggac tcagataaga gaattacagc ggcccaagcc
 1201 cttgcacatg cctactttgc tcagtaccac gatcctgatg atgaaccagt ggccgatcct
 1261 tatgatcagt cctttgaaag caggacctc cttatagatg agtggaaaag cctgacctat
 1321 gatgaagtca tcagctttgt gccaccacc cttgaccaag aagagatgga gtcttgagca
 1381 cctggtttct gttctgttga tcccacttca ctgtgagggg aaggcctttt cacgggaact
 1441 ctccaaatat tattcaagtg cctcttgttg cagagatttc ctccatggtg gaagggggtg
 1501 tgcgtgcgtg tgcgtgcgtg ttagtgtgtg tgcattgtgt

(2) INFORMATION FOR SEQ ID NO:2733:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3160 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2733

1 aattaaccct cactaaagg agtcgactcg atccccccgc ctccagcccct tttttctttt
 61 ttttttcatt ttcagttcag gagagtttta gcttaattat aggtacaga accagctttg
 121 ggcttcattc atcctttcta atatttactg ttctctattt ctctaatect agctctttat
 181 ttcttccctt tacttttact gggtttattt tgctatagtg gaatgcagag ggatgagtat
 241 tccaggaagg cacaaaaact gtgccaagtc ttggagctag ggatgagtgg gaaagggaca
 301 tgttcaacca ttttaggcca ttccctcccc acctccagc tcccagatat gtgcccctcg
 361 caggaggagc ccaggaatgg gccaaacacc tcacttcttt gctctgaggg ccacccagc
 421 cctcccatca acagctctag aaacccaatg gtccctctct gaaacacggg gcctgcatca
 481 atcagagggtg tttgaacat gtccctctgg gcctgagggg cagaagggga cacaatatgt
 541 aatgtaagga gccctgtgca tcagaaatct gacttaatct gttttcagat attagacttc
 601 cacataaaag ttgacttgga aaaagacttc tgctgctaaa caaaagtga aactgccttg
 661 gtgataaaa ataaagcagc cagctttctc ttctagcttt cctctcatt tcccataaga
 721 ttttggtaaa gttattttaa ctctctgcat ccgtttctc ttctatgaaa tgggcatgat
 781 aataatggta tatacctcct caaggggggt ataacgtgaa cagagtcctt agcacagcac
 841 tctgtctcta cgggagtga ttttcattgt ttttctctt cctgttgag aaagtaagaa

901 gaaaacagcg cctttatggc ttcccatggt gaatggctgg ggcgcgtctg tgtccctgtc
 961 tcctctctgg ctccctgtgg cctgaacagc cagaaggaag ccattgccatg ctgtttcagc
 1021 cctcagcttc cctcttgcat ttccatagaaa agtcctttggg gccagctcc agctcagcag
 1081 attcaggatc ccccttcac atgaattggg caacgcctg ctcaggccaa ggtcctctga
 1141 gagttccaag cttctccact ccctataaaa ggcggcgga acagccagag gacgagagag
 1201 gcaaagaaac attgtgaaat ctccaactct taaccttcaa catgaaagtc tctgcagtgc
 1261 ttctgtgect gctgctcatg acagcagctt tcaacccca gggacttgct cagccaggta
 1321 agtcacctcc cttcgactct ccctctcttt ccctctgttt ctctattcaa ggaagaccta
 1381 agcccgagtg ctccctccact ttttttttag attgagctc attatgttgc ccaggctgaa
 1441 gtgcaggggt gcgactcttg ctcatgcaa ccttcacctc ccagggtcaa gcgattctct
 1501 tgctcagcc ttctgagtag ctgtgattac aggcacgcc atcacgtgca gctaattttt
 1561 gtatttttag tagagaagg gtttccatg gttggcagg ctggtctcaa actcttgacc
 1621 tcaagtgtac ctcccgctc gccctcccaa agtgctggga ttacaggcgt gaggaccagg
 1681 cccagccaag tgccccactt ctaagccac cagaatagta aggtcctca gaggttact
 1741 ttaacatcta attttaaaga tagaaagctg aagcccatgt tggaggcaga agggacccta
 1801 gccatccacc tccagggtat tgcagagcaa gaatgaaacc taagcttctg actccagatt
 1861 tagggccttt tctttgacct catctgatcg tcccaaaactc tgcagatctg gaccacacc
 1921 agaccttccc actggccttg ccggtggcct ccctagatg gctgtgacat gctccacca
 1981 tgcagctgag cctttgagah cctgaggcac atgtcacagg tcccacctca cctcagggtc
 2041 taggggtgga gtgctgggct tgggggtgag taagatctac ttcttctct ttgctttgca
 2101 tcccatacag atgctccctg ctgtattcaa gctgagaaaa gctaacaca tctctaaagt
 2161 ctttttcttt gtaactattt ctgatgcaac tcaacgtccc atctacttg tgcttcacat
 2221 ttagcagtaa gaagatctcc ttgcagaggc tgaagagcta tgtgatcacc accagcagg
 2281 gtcccccagaa ggctgtcatg tgggtagaaa aatccctgct cgcctggctc ctccacctc
 2341 ccacattccc caatccaaag ttctgcccga ggagacagac gtcagactga cttgagatct
 2401 taggatgaga tctagccaga ctgtgtgatg caaaatctc caattttggc tgcacaacag
 2461 gtccaaagag gacctataat ttcccacacc ttgtttctct gatgggcacc agccacacc
 2521 ctttagcaga tgcaggatc agtttccag gggcagcaag agcagtggtc gcctccagag
 2581 acccttctg tccacacacc tctacttcc tgcctggag ggtgcccct tcacctgtag
 2641 taggtggacc aggcagggtt agaaccagat gtgtcatctc ctaggtaaac cctcaaagg
 2701 ttccatctaa ctgtgccaga tctcttctc ccacagctc agaaccacac tgggcaagg
 2761 gatctgtgct gacccaaagg agaagtggt ccagaattat atgaaacacc tgggcccga
 2821 agctcacacc ctgaagactt gaactctgct accctactg aaatcaagct ggagtacgtg
 2881 aaatgacttt tccattctcc tctggcctc tctctatgc tttggaatac ttctaccata
 2941 attttcaaat aggatgcatt cggttttgtg attcaaaatg tactatgtgt taagtaatat
 3001 tggctattat ttgacttgtt gctggtttg agtttattg agtattgctg atcttttcta
 3061 aagcaaggcc ttgagcaagt aggttgctgt ctctaagccc ccttccctc cactatgagc
 3121 tgctggcagt gggtttgtat tccgttccca ggggttgagc

(2) INFORMATION FOR SEQ ID NO:2734:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 855 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2734

1 ggcaagaaa cattgtgaaa tccaactc ttaaccttca acatgaaagt ctctgcagtg
 61 ctctgtgccc tgctgtcat gacagcagct ttcaaccccc agggacttgc tcagccagat
 121 gcaactcaacg tcccatctac ttgctgcttc acatttagca gtaagaagat ctcttgacag
 181 aggtggaaga gctatgtgat caccaccagc aggtgtcccc agaaggctgt catcttcaga
 241 accaaactgg gcaaggagat ctgtgctgac ccaaaggaga agtgggtcca gaattatatg
 301 aaacacctgg gccggaaagc tcacacctg aagacttgaa ctctgtacc cctactgaaa
 361 tcaagctgga gtacgtgaaa tgacttttcc attctcctct ggctcctct tctatgcttt
 421 ggaatacttc taccataatt ttcaaatagg atgcattcgg tttgtgatt caaaatgtac
 481 tatgtgttaa gtaatatgg ctattatttg actgttgct ggtttggagt ttatttgagt
 541 attgctgac tttctatag caaggccttg agcaagtagg ttgctgtctc taagccccct
 601 tcccttccac tatgagctgc tggcagtggt ttgtattcg gttcccagggt gttgagagca
 661 tgctgtggg agtcatggac atgaaggat gccgcaatgt aggaaggaga gctctttgtg
 721 aatgtgaggt gttgctaaat atgttattgt ggaagatga atgcaatagt aggactgctg
 781 acattttgca gaaaatacat tttatttaa aatctcctaa aaaaaaaaaa aaaaaaaaaa
 841 aagaaaaaaa aaaaa

(2) INFORMATION FOR SEQ ID NO:2735:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 825 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2735

```
1 acattgtgaa atctccaact cttaaccttc aacatgaaag tctctgcagt gcttctgtgc
61 ctgctgctca tgacagcagc tttcaacccc cagggacttg ctgagccaga tgcactcaac
121 gtcccatcta cttgctgctt cacatttagc agtaagaaga tctccttgca gaggctgaag
181 agctatgtga tcaccaccag cagggtgtcc cagaaggctg tcatcttcag aaccaaactg
241 ggcaaggaga tctgtgctga ccaaaggag aagtgggtcc agaattatat gaaacacctg
301 ggccggaaag ctcacaccct gaagacttga actctgctac ccctactgaa atcaagctgg
361 agtactgtga atgacttttc cattctcttc tggcctcttc ttctatgctt tggaaacttt
421 ctaccataat tttcaaatag gatgcattcg gttttgtgat tcaaaatgta ctatgtgtta
481 agtaatatgt gctattattt gacttggttc tggtttggag tttatttgag tattgctgat
541 cttttctaaa gcaaggcctt gagcaagtag gttgctgtct ctaagccccc ttcccttcca
601 ctatgagctg ctggcagtg gttgtattcg gttcccagg gttgagagca tgctgtggg
661 agtcatggac atgaagggat gctgcaatgt aggaaggaga gctctttgtg aatgtgaggt
721 tgttgctaaa ttattgttta ttgtggaaag atgaatgcaa tagtaggact gctgacattt
781 tgcagaaaat acattttatt taaaatctcc taaaaaaaaa aaaaa
```

(2) INFORMATION FOR SEQ ID NO:2736:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 860 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2736

```
1 aaaaggccgg cggaacagcc agaggagcag agaggcaaag aaacattgtg aaatctccaa
61 ctcttaacct tcaacatgaa agtctctgca gtgcttctgt gctgctgct catgacagca
121 gctttcaacc cccagggact tgctcagcca gatgcactca acgtcccatc tacttgctgc
181 ttcacattta gcagtaagaa gatctccttg cagaggctga agagctatgt gatcaccacc
241 agcagggtgc cccagaaggc tgtcatcttc agaaccaaac tgggcaagga gatctgtgct
301 gacccaaagg agaagtgggt ccagaattat atgaaacacc tgggcccga agctcacacc
361 ctgaagactt gaactctgct acccctactg aaatcaagct ggagtacgtg aaatgacttt
421 tccattctcc tctggcctcc tcttctatgc tttggaatac ttctaccata attttcaaat
481 aggatgcatt cggttttgtg attcaaaatg tactatgtgt taagtaatat tggctattat
541 ttgacttggt gctggtttgg agtttatttg agtattgtct atcttttcta aagcaaggcc
601 ttgagcaagt aggttgctgt ctctaagccc ccttcccttc cactatgagc tgctggcagt
661 ggggtttgat tcggttccca ggggttgaga gcatgcctgt gggagtcatg gacatgaagg
721 gatgctgcaa tgtaggaagg agagctcttt gtgaatgtga ggtgttgcta aatatgttat
781 tgtggaaaga tgaatgcaat agtaggactg ctgacatttt gcagaaaata cattttattt
841 aaaatctcca aaaaaaaaaa
```

(2) INFORMATION FOR SEQ ID NO:2737:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5700 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2737

```
1 aattaacct cactaaagg agtcgactcg atccccccgc ctgagcccct tttttctttt
61 ttttttcatt ttcagttcag gagagtttta gcttaattat aggtacaga accagctttg
121 ggcttcattc atcctttcta atatttactg tttcctattt ctctaactct agctctttat
181 ttcttccctt tactttcact gggttatttt tgctatagtg gaatgcagag ggatgagtat
241 tccaggaagg cacaaaaact gtgccaagtc ttggagctag ggatgagtgg gaaagggaca
301 tgttcaacca ttttaggcca ttccctcccc acctcccagc tcccagatat gtgccctcg
361 caggaggagc ccaggaatgg gccaaacacc tcactttctt gctctgaggg ccaccccagc
421 cctcccatca acagctctag aaacccaatg gtccttcctg gaaacacggg gctgcatca
481 atcagagggtg tttgaacct gtcctctggt gctgagggg cagaagggga cacaatatgt
541 aatgtaagga gccctgtca tcagaaatct gacttaatct gttttcagat attagacttc
```

601 cacataaaaag ttgacttgga aaaagacttc tgctgctaaa caaaagtga aactgccttg
 661 gtgataaaat ataagcagac cagctttctc ttctagcttt cctctcatt tcccataaga
 721 ttttggtcaa gttatttaaat ctctctgcat ccgtttccctc ttctatgaaa tgggcatgat
 781 aataatggta tatacctcct caaggggggt ataacgtgaa cagagtcctt agcacagcac
 841 tctgtctcta cgggagtgaa ttttcattgt ttttctctt cctgttgag aaagtaagaa
 901 gaaaacagcg cctttatggc ttcccatggt gaatggctgg ggcgcgtctg tgcctctgtc
 961 tctctctggt ctccttggtg cctgaacagc cagaaggaag ccagccatg ctgtttcagc
 1021 cctcagcttc cctcttgcat ttctagaaa agtctttggt gccagctcc agctcagcag
 1081 attcaggatc ccccttcac atgacttggt caacgcctg ctcaggccaa ggtcctctga
 1141 gagttccaag cttctccact cctataaaa ggcggcgga acagccagag gacgagagag
 1201 gcaaagaaac attgtgaaat ctccaactct taaccttcaa catgaaagtc tctgcagtgc
 1261 ttctgtgctt gctgctcatg acagcagctt tcaacccca gggacttgct cagccaggtg
 1321 agtcacctcc cttcgactct cctctcttt cctctgttt ctctattcaa ggaagacctg
 1381 agcccgagtg ctcctccact ttttttttag attgagcttc attatgttgc ccaggctgaa
 1441 gtgaggggt gcatcttggt ctcatgcaa ccttcacctc ccaggttcaa gcgattctct
 1501 tgcctcagcc ttctgagtag ctgtgattac aggcaccgcc atcacgtgca gctaattttt
 1561 gtatttttag tagagaagg gtttcaactat gttggccagg ctgggtctcaa actcttgacc
 1621 tcaagtgtat ctcctgctc ggcctccaa agtgcgtgga ttacaggcgt gaccaccagg
 1681 ccagccaaag tgccccactt ctaagccac cagaatagta aggtcctca gaggttcact
 1741 ttaacatcta attttaaaga tagaaagctg aagcccatgt tggaggcaga agggacccta
 1801 gccatccacc tccagggttat tgcagagcaa gaatgaaacc taagcttctg actccagatt
 1861 tagggccttt tctttgacct catctgatcg tcccaaaactc tgcagatctg gaccacacc
 1921 agaccttccc actggccttg cccgtggcct cccctagatg gctgtgacat gtctccacca
 1981 tgcagctgag cctttgagah cctgaggcac atgtcacagg tcccaccta cctcagggtc
 2041 taggggtgga gtgctgggtc tgggggtgag taagatctac ttcttctctt ttgctttgca
 2101 tcccatacag atgctcctg ctgtattcaa gctgagaaa gcctaacaca tctcaaat
 2161 ctttttcttt gtaactattt ctatgacac tcaacgtccc atctactgc tgccttccat
 2221 ttagcagtaa gaagatctcc ttgcagaggc tgaagagcta tgtgatcacc accagcagg
 2281 gtcccccagaa ggctgtcatg tgggtagaaa aatccctgct cgcctggctc ctccctactc
 2341 ccacattccc caatccaaag ttctgcccc ggagacagac gtcagactga cttgagatct
 2401 taggtagaga cttagccaga ctgtgtgatg caaaatctc caattttggc tgcacaacag
 2461 gtccaaagag gacctataat ttcccacacc ttgtttctcg gatgggcacc agcccacacc
 2521 ctttagcaga tgccaggatc agtttccag gggcagcaag agcagtggtc gcctccagag
 2581 accccttctg tccacacacc tctacttcc tgcctggag ggggtgccct tcacctgtag
 2641 taggtggacc aggcagggtt agaaccaggt gtgtcatctc ctaggtaaac cctcaaagg
 2701 ttccatctaa ctgtgccaga tctccttctc ccacagcttc agaaccaaac tgggcaagg
 2761 gatctgtgct gacccaaagg agaagtgggt ccagaattat atgaaacacc tgggcccggaa
 2821 agctcacacc ctgaagactt gaactctgct acccctactg aaatcaagct ggagtacgtg
 2881 aaatgacttt tccattctcc tctggcctcc tcttctatgc tttggaatac ttctaccata
 2941 attttcaaata aggatgcatt cggttttgtg attcaaaatg tactatgtgt taagtaatat
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 3061 aagcaaggcc ttgagcaagt aggttgctgt ctctaagccc ccttcccttc cactatgagc
 3121 tgctggcagt ggtttgtat tgggttccca ggggttgagc
 1 ggcaaagaaa cattgtgaaa tctccaactc ttaaccttca acatgaaagt ctctgcagt
 61 ctctgtgccc tgctgtcat gacagcagct ttcaaccccc agggacttgc tcagccagat
 121 gcaactcaacg tcccatctac ttgctgcttc acatttagca gtaagaagat ctccttgcag
 181 aggtggaaga gctatgtgat caccaccagc aggtgtcccc agaaggctgt catcttcaga
 241 accaaactgg gcaaggagat ctgtgctgac caaaggaga agtgggtcca gaattatatg
 301 aaacacctgg gccggaaaagc tcacacctg aagacttgaa ctctgtacc cctactgaaa
 361 tcaagctgga gtacgtgaaa tgacttttcc attctcctc ggccctctct tctatgcttt
 421 ggaatacttc taccataatt ttcaaataag atgcattcgg ttttgtgatt caaaatgtac
 481 tatgtgttaa gtaataattg ctattatttg acttgttgc ggtttggagt ttatttgagt
 541 attgctgatc tttctatag caaggccttg agcaagtagg ttgctgtctc taagccctct
 601 tcccttccac tatgagctgc tggcagtggt tttgtattcg gttcccagg gttgagagca
 661 tgcctgtggg agtcatggac atgaaggat gccgcaatgt aggaaggaga gctcttctg
 721 aatgtgaggt gttgctaaat atgttattgt gaaagatga atgcaatagt aggactgctg
 781 acattttgca gaaaatacat tttattttaa aatctcctaa aaaaaaaaaa aaaaaaaaaa
 841 aagaaaaaaa aaaaa
 1 acattgtgaa atctccaact cttaaccttc aacatgaaag tctctgcagt gcttctgtgc
 61 ctgctgctca tgacagcagc ttcaacccc cagggacttg ctcagccaga tgcaactaac
 121 gtcccatcta cttgctgctt cacatttagc agtaagaaga tctccttgca gaggctgaag
 181 agctatgtga tcaccaccag caggtgtccc cagaaggctg tcatcttcag aaccaaactg

241 ggcaaggaga tctgtgctga cccaaaggag aagtgggtcc agaattatat gaaacacctg
301 ggccggaaaag ctacacacct gaagacttga actctgctac cctactgaa atcaagctgg
361 agtacgtgaa atgacttttc cattctctc tggcctctc ttctatgctt tggaatactt
421 ctaccataat tttcaaatag gatgcattcg gttttgtgat tcaaaatgta ctatgtgtta
481 agtaatatgt gctattattt gacttgttgc tggtttgag tttatttgag tattgtctgat
541 cttttctaaa gcaaggcctt gagcaagtag gttgctgtct ctaagcccc ttccttcca
601 ctatgagctg ctggcagtg gttgtattcg gtcccagg gttgagagca tgcctgtggg
661 agtcatggac atgaaggat gctgcaatgt aggaaggaga gctctttgtg aatgtgaggt
721 tgttgctaaa ttattgttta ttgtgaaaag atgaatgcaa tagtaggact gctgacattt
781 tgcagaaaat acattttatt taaaatctcc taaaaaaaa aaaaa
1 aaaaggcccg cggaacagcc agaggagcag agaggcaag aaacattgtg aaatctccaa
61 ctcttaacct tcaacatgaa agtctctgca gtgcttctgt gctgtgctgt catgacagca
121 gctttcaacc ccagggaact tgctcagcca gatgactca acgtcccatc tacttgcctg
181 ttcacattta gcagtaagaa gatctccttg cagaggctga agagctatgt gatcaccacc
241 agcaggtgtc ccagaaaggc tgcatcttc agaaccaaac tgggcaagga gatctgtgct
301 gacccaaagg agaagtgggt ccagaattat atgaacacc tgggcccgaag agctcacacc
361 ctgaagactt gaactctgct acccctactg aaatcaagct ggagtacgtg aaatgacttt
421 tccattctcc tctggcctcc tcttctatgc ttggaatac ttctaccata attttcaaat
481 aggatgcatt cgtttttgtg attcaaaatg tactatgtgt taagtaatat tggctattat
541 ttgacttgtt gctggtttgg agtttatttg agtattgctg atcttttcta aagcaaggcc
601 ttgagcaagt aggttgctgt ctctaagccc ccttcccttc cactatgagc tgcctggcag
661 ggttttgat tcggttccca ggggttgaga gcatgcctgt gggagtcatg gacatgaagg
721 gatgctgcaa ttaggaagg agagctcttt gtgaatgtga ggtgttgcta aatatgttat
781 tgtggaaga tgaatgcaat agtaggactg ctgacatttt gcagaaaata cattttattt
841 aaatctcca aaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2738:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2248 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2738

1 cgcccgggca ggtcctctgc cttagcactgc tcccccaagg ctcccagaaa tctcaggtca
61 gaggcacgga cagcctctgg agctctcgtc tgggtgggacc atgaactgcc agcagctgtg
121 gctgggcttc ctactcccca tgacagtctc aggcggggtc ctggggcttg cagaggtggc
181 gccggtggac tacctgtcac aatatgggta cctacagaag cctctagaag gatctaataa
241 cttaagcca gaagatatca ccgaggctct gagagctttt caggaagcat ctgaacttcc
301 agtctcaggt cagctggatg atgccacaag ggcgcgatg aggcagcctc gttgtggcct
361 agaggatccc ttcaaccaga agacccttaa atacctgttg ctgggcccgt ggagaaagaa
421 gcacctgact ttccgcatct tgaacctgcc ctccaccctt ccaccccaca cagcccgggc
481 agccctgctg caagccttcc aggactggag caatgtggct cccttgacct tccaagaggt
541 gcaggctggt gcggctgaca tccgcctctc cttccatggc cgccaaagct cgtactgttc
601 caatactttt gatgggcctg ggagagtcct ggcctatgcc gacatcccag agctgggcag
661 tgtgcacttc gacgaagacg agttctggac tgaggggacc tacctgtggg tgaacctgag
721 catcattgca gcccatgaag tgggcatgct tctggggctt gggcactccc gatattccca
781 ggccctcatg gccccagctc acgagggcta ccggcccccac tttaagctgc acccagatga
841 tgtggcaggg atccaggtc tctatggcaa gaagagtcca gtgataagg atgaggaaga
901 agaagagaca gagctgcccc ctgtgcccc agtgcccaca gaaccagtc ccatgccaga
961 cccttgcaat agtgaactgg atgcatgat gctggggccc cgtgggaaga cctatgcttt
1021 caagggggac tatgtgtgga ctgtatcaga ttcaggaccg ggccccttgt tccagatgtc
1081 tgccctttgg gaggggtccc ccggaacct ggatgtgct gtctactgc ctccaacaca
1141 atggattcac ttctttaagg gagacaagg gtggcgctac attaatcca agatgtctcc
1201 tggcttcccc aagaagctga ataggtcaga acctaacctg gatgcagctc tctattggcc
1261 tctcaaccaa aaggtgttcc tctttaagg ctccgggtac tggcagtggt acgagctagc
1321 ccgaactgac ttcagcagct accccaaacc aatcaagggt ttgtttacgg gagtgccaaa
1381 ccagccctcg gctgctatga gttggcaaga tggccgagtc tacttcttca agggcaaggt
1441 ctaactggcg ctcaaccagc agcttcgagt agagaaaggc tatcccagaa atatttccca
1501 caactggatg cactgtcgtc cccggactat agacactacc ccatcaggtg ggaataccac
1561 tccctcaggt acgggcataa ccttggtatc cactctctca gccacagaaa ccacgtttga
1621 atactgactg ctaccccaca gacacaatct tggacattaa cccctgaggc tccaccaccc
1681 accctttcat ttccccccca gaagcctaag gcctaatagc tgaatgaaat acctgtctgc

1741 tcagtagaac cttgcaggtg ctgtagcagg cgcaagaccg tagatctcag gcctctaaca
 1801 cttccaactc cagccaccac tttcctgtgc attttcactc ctgagaagtg ctcccctaac
 1861 tcagatcccc taacttagat ttggccccc aactccattc ctgtctgtct tagacagccc
 1921 ttccaactgt gtcattctct ctctggaggt caatgggtgga gggagatgcc tgggtcctgt
 1981 tcttcctaca taaaatgcaa gaaaacagca tggccagtaa actgagcaag ggccttggaa
 2041 tccttgagaa tcacatttat gtgcttatga ttacgggcaa gctaattaac ctltgtgaat
 2101 ctcagattcc ccatttgcaa cattaggtta agaccagtac tgcaggattg ttgcactaaa
 2161 tgaataactg tatgtgaagt gcctggcaca gtgtctgtga catttgtgtt taataaaagc
 2221 taactccatg ttcataagaa aaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2739:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 627 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2739

1 ggagaccggc cgcattgacc cagggacagt ggccaccatg cgtaagcccc gctgctccct
 61 gcctgacgtg ctgggggtgg cggggctggt caggcgcgct cgccggtagc ctctgagcgg
 121 cagcgtgtgg aagaagcgaa ccctgacatg gagggtagct tccttccccc agagctcccc
 181 gctgagccag gagaccgtgc gggctcctcat gagctatgcc ctgatggcct ggggcatgga
 241 gtcaggcctc acatttcatg aggtggattc cccccagggc caggagcccg acatcctcat
 301 cgactttgcc cgcgccttcc accaggacag ctacccttcc gacgggttgg ggggacccct
 361 agcccatgcc ttcttccttg gggagcacc ccctctccgg gacactcact ttgacgatga
 421 ggagaccctg acttttgggt caaaagcctc tcagcagctg gagcaggagc tggcaggcgg
 481 ctcaccggtt gatgaggagc tgggcttcag ccggggctgg cgtgtgaatc ctctgggtcc
 541 tggcagtcct gagcgctga gctgaataga gagggaagag gctgggagca aggcggggtg
 601 ctggggccgg caggctgtgt tctgaga

(2) INFORMATION FOR SEQ ID NO:2740:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1532 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2740

1 atgatcttac tcacattcag cactggaaga cggttggatt tcgtgcatca ttcgggggtg
 61 tttttcttgc aaaccttgc tttgatttta tgtgctacag tctgcggaac ggagcagtat
 121 ttcaatgtgg aggtttggtt acaaaagtac ggctaccttc caccgactga cccagaatg
 181 tcagtgtctg gctctgcaga gaccatgcag tctgccttag ctgccatgca gcagttctat
 241 ggcattaaca tgacaggaaa agtggacaga aacacaattg actggatgaa gaagccccga
 301 tgcggtgtac ctgaccagac aagaggtagc tccaaatttc atattcgtcg aaagcgatat
 361 gcattgacag gacagaaatg gcagcacaag cacatcactt acagtataaa gaacgtaact
 421 ccaaaagttag gagaccctga gactcgtaaa gctattcgcc gtgcctttga tgtgtggcag
 481 aatgtaactc ctctgacatt tgaagaagtt ccctacagtg aattagaaaa tggcaaacgt
 541 gatgtggata taaccattat ttttgcattt ggtttccatg gggacagctc tccctttgat
 601 ggagaggagg gatttttggc acatgcctac ttccctggac cagggaattg aggagatacc
 661 cattttgact cagatgagcc atggacacta ggaaatccta atcatgatgg aaatgactta
 721 tttctttagc cagtccatga actgggacat gctctgggat tggagcattc caatgacccc
 781 actgccatca tggctccatt ttaccagtac atggaaacag acaacttcaa actacctaat
 841 gatgatttac agggcatcca gaagatatat ggtccacctg acaagattcc tccacctaca
 901 agacctctac cgacagtgcc cccacaccgc tctattcctc cggctgaccc aaggaaaaat
 961 gacaggccaa aacctcctcg gcctccaacc ggcagaccct cctatcccgg agccaaaccc
 1021 aacatctgtg atgggaactt taacactcta gctattcttc gtcgtgagat gtttgttttc
 1081 aaggaccagt ggttttggcg agtgagaaac aacagggtga tggatggata cccaatgcaa
 1141 attacttact tctggcgggg cttgcctcct agtatcgatg cagtttatga aaatagcgac
 1201 gggaattttg tgttctttaa agtgaaggga gacactctat ctgtaatcca agatggttgg
 1261 ctctacaaat accatttgaa atggattcta gaacaaaggc agtcagtgcc tgtgctctca
 1321 agacaaactg aaaagcaca gacctatgaa gaattatctt ccatcacata ctaacaaaga
 1381 acaatcagga attgaaaaat taaaataaaa ggccatttac aattgcattc gaaaacacca
 1441 aataccgagg gatcaatctg caaaaaatgt gcatgacctc tacattgaaa acaacaaaac
 1501 actactaaat gtttgtcttt aaaggcagct gg

(2) INFORMATION FOR SEQ ID NO:2741:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1778 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2741

```
1 tagaagttta caatgaagtt tcttctaata ctgctcctgc aggccactgc ttctggagct
61 ctccccctga acagctctac aagcctggaa aaaaataatg tgctatttgg tgagagatac
121 tttagaaaaat tttatggcct tgagataaac aaacttccag tgacaaaaat gaaatatagt
181 ggaaacttaa tgaaggaaaa aatccaagaa atgcagcact tcttgggtct gaaagtgacc
241 gggcaactgg acacatctac cctggagatg atgcacgcac ctcgatgtgg agtccccgat
301 ctccatcatt tcagggaaat gccagggggg ccggtatgga ggaaacatta tatcacctac
361 agaatcaata attacacacc tgacatgaac cgtgaggatg ttgactacgc aatccggaaa
421 gctttccaag tatggagtaa tgttaccccc ttgaaattca gcaagattaa cacaggcatg
481 gctgacattt tgggtgtttt tgcccgtgga gctcatggag acttccatgc ttttgatggc
541 aaaggtggaa tcctagccca tgcttttggg cctggatctg gcattggagg ggatgcacat
601 ttcgatggag acgaattctg gactacacat tcaggaggca caaacttggt cctcactgct
661 gttcacgaga ttggccattc cttaggtctt ggccattcta gtgatccaaa ggctgtaatg
721 ttccccacct acaaatatgt cgacatcaac acatttcgcc tctctgctga tgacatacgt
781 ggcattcagt ccctgtatgg agacccaaaa gagaaccaac gcttgccaaa tcttgacaat
841 tcagaaccag ctctctgtga ccccaatttg agttttgatg ctgtcactac cgtgggaaat
901 aagatctttt tcttcaaaga caggttcttc tggctgaagg tttctgagag accaaagacc
961 agtggttaatt taatttcttc cttatggcca accttgccat ctggcattga agctgcttat
1021 gaaattgaag ccagaaatca agtttttctt tttaaagatg acaaatactg gttaattagc
1081 aatttaagac cagagccaaa ttatcccaag agcatacatt cttttggttt tcttaacttt
1141 gtgaaaaaaaa ttgatgcagc tgtttttaac ccacgttttt ataggaccta ctctcttgta
1201 gataaccagt attggaggta tgatgaaagg agacagatga tggaccctgg ttatcccaaa
1261 ctgattacca agaacttcca aggaatcggg cctaaaattg atgcagtctt ctattctaaa
1321 aacaaatact actatttctt ccaaggatct aaccaatttg aatatgactt cctactccaa
1381 cgtatcacca aaacactgaa aagcaatagc tggtttggtt gttagaaatg gtgtaattaa
1441 tggtttttgt tagttcactt cagcttaata agtatttatt gcatatttgc tatgtcctca
1501 gtgtaccact acttagagat atgtatcata aaaataaaat ctgtaacca taggtaatga
1561 ttatataaaa tacataatat ttttcaattt tgaaaactct aattgtccat tcttgcttga
1621 ctctactatt aagtttgaaa atagttacct tcaaagcaag ataattctat ttgaagcatg
1681 ctctgtaagt tgcttcctaa catccttgga ctgagaaatt atacttactt ctggcataac
1741 taaaattaag tatatatatt ttggctcaaa taaaattg
```

(2) INFORMATION FOR SEQ ID NO:2742:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1743 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2742

```
1 aaagaaggta agggcagtg gaatgatgca tcttgcatc cttgtgctgt tgtgtctgcc
61 agtctgctct gcctatcctc tgagtggggc agcaaaagag gaggactcca acaaggatct
121 tgcccagcaa tacctagaaa agtactacaa cctcgaaaag gatgtgaaac agtttagaag
181 aaaggacagt aatctcattg ttaaaaaaat ccaaggaaat cagaagttcc ttgggttgga
241 ggtgacaggg aagctagaca ctgacactct ggaggtgatg cgcaagccca ggtgtggagt
301 tcttgacggt ggtcacttca gctcctttcc tggcatgccg aagtggagga aaaccacct
361 tacatacagg attgtgaatt atacaccaga tttgccaaaga gatgctgttg attctgccat
421 tgagaaagct ctgaaagtct gggaagaggt gactccactc acattctcca ggctgtatga
481 agggagaggct gatataatga tctctttcgc agttaaagaa catggagact tttactcttt
541 tgatggccca ggacacagtt tggctcatgc ctaccacct ggacctgggc tttatggaga
601 tattcacttt gatgatgatg aaaaatggac agaagatgca tcaggcacca atttattcct
661 cgttgctgct catgaacttg gccactccct ggggctcttt cactcagcca aactgaagc
721 tttgatgtac cactctaca actcattcac agagctcgcc cagttccgcc tttcgcaaga
781 tgatgtgaat ggcattcagt ctctctacgg acctccccct gcctctactg aggaaccctt
841 ggtgcccaca aaatctgttc cttcgggagc tgagatgcca gccaaagtgtg atcctgcttt
901 gtccttcgat gccatcagca ctctgagggg agaatatctg tcttttaaag acagatatatt
961 ttggcgaaaga tcccactgga accctgaacc tgaatttcat ttgatttctg cattttggcc
1021 ctctcttcca tcatatttgg atgctgcata tgaagttaac agcagggaca ccgtttttat
```

1081 ttttaaagga aatgagttct gggccatcag aggaaatgag gtacaagcag gttatccaag
 1141 aggcattccat accctgggtt ttcctccaac cataaggaaa attgatgcag ctgtttctga
 1201 caaggaaaaag aagaaaacat acttctttgc agcggacaaa tactggagat ttgatgaaaa
 1261 tagccagtc atggagcaag gcttccctag actaatagct gatgactttc caggagtga
 1321 gcctaaggtt gatgctgtat tacaggcatt tggatttttc tacttcttca gtggatcatc
 1381 acagtttgag tttgacccca atgccaggat ggtgacacac atattaaaga gtaacagctg
 1441 gttacattgc taggcgagat agggggaaga cagatatggg tgtttttaat aaatctaata
 1501 attattcatc taatgtatta tgagccaaaa tggttaattt ttcctgcatt ttcgtgact
 1561 gaagaagatg agccttgcat atatctgcat gtgtcatgaa gaatgtttct ggaattcttc
 1621 acttgctttt gaattgcact gaacagaatt aagaaatact catgtgcaat aggtgagaga
 1681 atgtattttc atagatgtgt tattacttcc tcaataaaaa gttttatttt gggcctgttc
 1741 ctt

(2) INFORMATION FOR SEQ ID NO:2743:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1209 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2743

1 ctgaggtggg taagagtaca atggctaaat cttaacacac tcttacgtgt acaccctacc
 61 gtacaccatc cagactcgtc cccatacaat caggagtgat cagtacgtaa atgcttatgg
 121 tgtgatttga aggggtgtta gagtagatca tctctcacac cgcagcagca ctgcttccaa
 181 ttcattcttt ggaattttat tccctgactg ttaaaaagtt ttagtgctta aatattctct
 241 attgaggtaa gagacagatt ctgtgcaatg ggacaattag gtcaagaggg aaagaagctg
 301 aggtgatagg cagatagatt ccagaggcaa acttttccca tctgctaaag ttgaaaagag
 361 taaccacat cctaccaacg ctagacaatc taggatgtag ggaaagtgtg tctctggaat
 421 ctatccaggt acccagttgg gactgagctt cagcttagat gtctgaagat gttaaagttat
 481 agaatcaggt ttaagtctga agatgttaag ttatagaatc aggatctgag ccggtacaac
 541 acgtggataa acaatgaagt cgatgttaca aatttttttt tgctacttgt aaaatctctg
 601 tatcacattt ctctaggag ctggattccg ttaggagca ctcatttact ccaggaaaag
 661 gattttattt aatctttcaa catttacttt aaaaactttt tttatctata atgaatataa
 721 ggaagtatta taatgaaac caagttatca ggctttaaga aaatatattt taagtctctc
 781 ttctctttta gttgcttgat atttctttta caagggttta tttttagat aggtggacgt
 841 agaggcttat ttatcatttt gaaggtacat actctgaatt gcttgagtga tggactagat
 901 gctaattgat ccattgtcgt ctgaataaag tcatgctttt gtttgcatgt ttttagagat
 961 agtcaaggga tgatatcaac tatgagtcac tcataggatt catattcaca gaacccggac
 1021 taagggtcat ataaagagga acagttcagg aacttaggct agaaaggaca cagtaaacctg
 1081 aattgatccg tttagaagtt tacaatgaag tttcttctaa tactgctcct gcaggccact
 1141 gcttctggag ctcttccctt gaacagctct acaagcctgg aaaaaataa tgtgctattg
 1201 ggtgagaga

(2) INFORMATION FOR SEQ ID NO:2744:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9137 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2744

1 cggccgggca ggtcctctgc ctgactgc tccccagg ctcccagaaa tctcaggtca
 61 gaggcacgga cagcctctgc agctctcgtc tgggtggacc atgaactgcc agcagctgtg
 121 gctgggcttc ctactcccca tgacagtctc aggcgggtc ctggggcttg cagaggtggc
 181 gccggtggac tacctgtcac aatatgggta cctacagaag cctctagaag gatctaataa
 241 cttaagcca gaagatatca ccgaggtctt gagagctttt caggaagcat ctgaacttcc
 301 agtctcaggt cagctggatg atgccacaag ggcccgcatg aggcagctc gttgtggcct
 361 agaggatccc tcaaccaga agacccttaa atacctgtg ctgggcccgt ggagaaagaa
 421 gcacctgact ttccgcatct tgaacctgcc ctccaccctt ccacccca cagccgggc
 481 agcctcgt caagccttc aggactggag caatgtggct cccttgacct tccaagaggt
 541 gcaggctggt gcggctgaca tccgctctc ctccatggc cgccaagct cgtactgttc
 601 caatactttt gatgggctg ggagagtcct ggccatgcc gacatcccag agctgggcag
 661 tgtgcacttc gacgaagacg agttctggac tgaggggacc taccgtggg tgaacctgcg
 721 catcattgca gcccatgaag tgggcatgc tctgggctt gggcactccc gatattcca
 781 ggccctcatg gcccagctct acgagggcta ccggccccc ttaagctgc accagatga

841 tgtggcaggg atccaggctc tctatggcaa gaagagtcca gtgataaggg atgaggaaga
 901 agaagagaca gagctgccca ctgtgcccc agtgcccaca gaaccagtc ccatgccaga
 961 cccttgcaat agtgaactgg atgccatgat gctggggccc cgtgggaaga cctatgcttt
 1021 caagggggac tatgtgtgga ctgtatcaga ttcaggaccg ggcccttgt tccgagtgtc
 1081 tgcccttttg gaggggctcc ccggaacct ggatgctgct gtctactcgc ctccaacaca
 1141 atggattcac ttctttaagg gagacaaggt gtggcgctac attaatltca agatgtctcc
 1201 tggcttcccc aagaagctga ataggtcaga acctaacctg gatgcagctc tctattggcc
 1261 tctcaaccaa aaggtgttcc tctttaaggg ctccgggtac tggcagtggt acgagctagc
 1321 ccgaactgac ttcagcagct accccaaacc aatcaagggt ttgtttacgg gagtgcacaa
 1381 ccagccctcg gctgctatga gttggcaaga tggccgagtc tacttcttca agggcaaaat
 1441 ctactggcgc ctcaaccagc agcttcgagt agagaaaggc tatcccagaa atatttcccc
 1501 caactggatg cactgtcgtc ccgggactat agacactacc ccatcagggt ggaataccac
 1561 tccctcaggt acgggcataa ccttggatac cactctctca gccacagaaa ccacgtttga
 1621 atactgactg ctaccccaca gacacaatct tggacattaa cccctgaggg tccaccaccc
 1681 accctttcat tcccccccca gaagcctaag gcctaatagc tgaatgaaat acctgtctgc
 1741 tcagtagaac ctgtcaggtg ctgtagcagg cgcaagaccg tagatctcag gcctctaaca
 1801 ctccaactc cagccaccac ttctctgtgc attttcactc ctgagaagtg ctcccctaac
 1861 tcagatcccc taacttagat ttggccccc actccatttc ctgtctgtct tagacagccc
 1921 ttccaactgt gtcattctct ctctggaggt caatgggtga gggagatgcc tgggtctctg
 1981 tcttcttaca taaaatgcaa gaaaacagca tggccagtaa actgagcaag ggccttgga
 2041 tccttgagaa tcacatttat gtgcttatga ttacgggcaa gctaattaac ctgtgtgaat
 2101 ctcagattcc cactttgcaa cattaggtta agaccagtac tgcaggattg ttgcactaaa
 2161 tgaataactg tatgtgaagt gcctggcaca gtgtctggta catttgtgtt taataaaagc
 2221 taactccatg ttcataagaa aaaaaaaa
 1 ggagaccggc cgcattggacc caggacaggt ggccaccatg cgtaagcccc gctgctccct
 61 gcctgacgtg ctgggggtgg cggggctggt caggcggtcg cgccggtacg ctctgagcgg
 121 cagcgtgtgg aagaagcgaa cctgacatg gagggtagct tccctcccc agagctccca
 181 gctgagccag gagaccgtgc gggctctcat gagctatgcc ctgatggcct ggggcatgga
 241 gtcaggcctc acatttcatg aggtggattc cccccagggc caggagcccg acatcctcat
 301 cgactttgcc cgcgccttcc accaggacag ctacccttc gacgggttgg ggggacccct
 361 agcccatgcc ttcttccctg gggagcacc cactctcggg gacactcact ttgacgatga
 421 ggagacctgg acttttgggt caaaaagcctc tcagcagctg gagcaggagc tggcaggcgg
 481 ctaccgggtt gatgaggagc tgggcttcag ccggggctgg cgtgtgaatc ctctgggtcc
 541 tggcagtcct gagcgctga gctgaataca gaggaagag gctgggagca agggccgggtg
 601 ctggggcggg caggctgtgt tctgaga
 1 atgatcttac tcacattcag cactggaaga cggttggtt tctgtcatca ttcgggggtg
 61 tttttcttgc aaaccttgc tttgatttta tgtgtacag tctgcggaac ggagcagtat
 121 ttcaatgtgg aggtttgtt acaaaagtac ggctaccctc caccgactga cccagaatg
 181 tcagtgtcgc gctctgcaga gacctgcag tctgccttag ctgccatgca gcagtcttat
 241 ggcattaaac tgacaggaaa agtgagcaga aacacaattg actggatgaa gaagccccga
 301 tggcgtgtac ctgaccagac aagaggtagc tccaaatttc atattcgtcg aaagcgatat
 361 gcattgacag gacagaaaat gcagcacaag cacatcactt acagtataaa gaacgtaact
 421 ccaaaagttag gagaccctga gactcgtaaa gctattcgcc gtgcctttga tgtgtggcag
 481 aatgtaactc ctctgacatt tgaagaagtt ccctacagtg aattagaaaa tggcaaacgt
 541 gatgtggata taaccattat ttttgcattc ggtttccatg gggacagctc tccctttgat
 601 ggagaggagg gatttttggc acatgcctac ttccctggac cagggaattg aggagatacc
 661 cattttgact cagatgagcc atggacacta ggaaatccta atcatgatgg aaatgactta
 721 tttctttag cagtcctatg actgggacat gctctgggat tggagcattc caatgacccc
 781 actgccatca ttgctccatt ttaccagtac atggaaacag acaacttcaa actacctaat
 841 gatgatttac agggcatcca gaagatatat ggtccacctg acaagattcc tccacctaca
 901 agacctctac cgacagtgc cccacaccgc tctattcctc cggctgaccc aaggaaaaat
 961 gacaggccaa aacctcctcg gcctccaacc ggcagaccct cctatcccg agccaaaccc
 1021 aacatctgtg atgggaactt taacactcta gctattcttc gtcgtgagat gtttgttttc
 1081 aaggaccagt ggttttggcg agtgagaaac aacagggtga tggatggata cccaatgcaa
 1141 attacttact tctggcgggg cttgcctcct agtatcgatg cagtttatga aaatagcgac
 1201 gggaattttg tgttctttaa agtgaaggga gacactctat ctgtaatcca agatgggttg
 1261 ctctacaaat accattggaa atggattcta gaacaaaggc agtcagtgcc tgtgctctca
 1321 agacaaactg aaaagcacia gacctatgaa gaattatctt ccatcacata ctaacaaaga
 1381 acaatcagga attgaaaatt taaaaataaa ggccatttac aattgcattc gaaaacacca
 1441 aataccgagg gatcaatctg caaaaaatgt gcatgacctc tacattgaaa acaacaaaac
 1501 actactaaat gtttgtcttt aaaggcagct gg
 1 tagaagttaa caatgaagtt tcttctaata ctgctcctgc aggcactgc tcttgagact

61 cttccccctga acagctctac aagcctggaa aaaaataatg tgctatttgg tgagagatac
121 tttagaaaaat tttatggcct tgagataaac aaacttccag tgacaaaaat gaaatatagt
181 ggaaacttaa tgaaggaaaa aatccaagaa atgcagcact tcttgggtct gaaagtgacc
241 gggaactgg acacatctac cctggagatg atgcacgcac ctgatgtgg agtccccgat
301 ctccatcatt tcagggaat gccagggggg cccgatgga ggaacatta tatcacctac
361 agaatcaata attacacacc tgacatgaac cgtgaggatg ttgactacgc aatccggaaa
421 gctttccaag tatggagtaa gttaaccccc ttgaaattca gcaagattaa cacaggcatg
481 gctgacattt tgggtgtttt tggcgtgga gctcatggag acttccatgc ttttgatggc
541 aaagggtgaa tcctagccca tgcttttga cctggatctg gcattggagg ggatgcacat
601 ttcgatgagg acgaattctg gactacacat tcaggaggca caaacttgtt cctcactgct
661 gttcacgaga ttggccattc cttaggtctt ggccattcta gtgatccaa ggctgtaagt
721 ttccccacct acaaatatgt cgacatcaac acatttccgc tctctgctga tgacatcgt
781 ggcattcagt ccctgtatgg agacccaaaa gagaaccaac gcttgccaaa tcctgacaat
841 tcagaaccag ctctctgtga cccaatttg agttttgatg ctgtcactac cgtgggaaat
901 aagatctttt tcttcaaaaga cagggtcttc tggttgagg tttctgagag accaaagacc
961 agtggttaatt taatttcttc cttatggcca accttgccat ctggcattga agctgcttat
1021 gaaattgaa ccagaaatca agtttttctt tttaaagatg acaataactg gtttaattagc
1081 aatttaagac cagagccaaa ttatcccaag agcatacatt cttttggttt tcctaacttt
1141 gtgaaaaaaa ttgatgcagc tgtttttaac ccacgttttt ataggacctt cttctttgta
1201 gataaccagt attggaggta tgatgaaagg agacagatga tggaccctgg ttatcccaaa
1261 ctgattacca agaacttcca aggaatcggg cctaaaattg atgcagtctt ctattctaaa
1321 aacaaatact actatttctt ccaaggatct aaccaatttg aatatgactt cctactccaa
1381 cgtatcacca aaacactgaa aagcaatagc tggtttggtt gttagaaatg gtgtaattaa
1441 tggtttttgt tagttcactt cagcttaata agtattttat gcataattgc tatgtctca
1501 gtgtaccact acttagagat atgtatcata aaaataaaat ctgtaaaacca taggtaatga
1561 ttatataaaa tacataatat ttttcaattt tgaaaactct aattgtccat tcttgcttga
1621 ctctactatt aagtttgaat atagttacct tcaaagcaag ataattctat ttgaagcatg
1681 ctctgtaagt tgcttcttaa catccttggg ctgagaaatt atacttactt ctggcataac
1741 taaaattaa tatatatatt ttggtcctaa taaaattg
1 aaagaaggta agggcagtga gaatgatgca tcttgcatc cttgtgctgt tgtgtctgcc
61 agtctgctct gctatcctc tgagtggggc agcaaaaagag gaggactcca acaaggatct
121 tgcccagcaa tacctagaaa agtactacaa cctcgaaaag gatgtgaaac agtttagaag
181 aaaggacagt aatctcattg ttaaaaaaat ccaaggaaat cagaagtcc ttgggttggg
241 ggtgacaggg aagctagaca ctgacactct ggaggtgatg cgcaagccca ggtgtggagt
301 tcctgacgtt ggtcacttca gctccttcc tggcatgccg aagtggaggaa aaaccaccc
361 tacatacagg atttgtaatt atacaccaga ttggccaaaga gatgctgttg attctgcca
421 tgagaaaagct ctgaaaagtct gggaagaggt gactccactc acattctcca ggctgtatga
481 aggagaggct gatataatga tctctttcgc agttaaagaa catggagact tttactctt
541 tgatggccca ggacacagtt tggctcatgc ctacccacct ggacctgggc tttatggaga
601 tattcacttt gatgatgatg aaaaatggac agaagatgca tcaggcacca atttattcct
661 cgttgctgct catgaacttg gccactccct ggggctcttt cactcagcca acaactgaagc
721 tttgatgtac ccactctaca actcattcac agagctcgcc cagttccgcc tttcgcaaga
781 tgatgtgaat ggcattcagt ctctctacgg acctccccct gcctctactg aggaaccct
841 ggtgccca aaatctgttc cttcgggac tgagatgcca gccaaagtgtg atcctgcttt
901 gtccttcgat gccatcagca ctctgagggg agaatactg tcttttaaag acagatattt
961 ttggcgaaga tcccactgga accctgaacc tgaatttcat ttgatttctg cattttggcc
1021 ctctcttcca tcataatttg atgtgcata tgaagttaac agcagggaca ccgtttttat
1081 ttttaaagga aatgagttct ggccatcag aggaaatgag gtacaagcag gttatccaag
1141 aggcattcat accctgggtt ttcctccaac cataaggaaa attgatgcag ctgtttctga
1201 caaggaaaag aagaaaacat acttctttgc agcgacaaa tactggagat ttgatgaaa
1261 tagccagtc atggagcaag gcttccctag actaatagct gatgacttcc caggagtgtga
1321 gcctaagggt gatgctgtat tacaggcatt tggatttttc tacttcttca gtggatcatc
1381 acagtttgag tttgacccca atgccaggat ggtgacacac atattaaaga gtaacagctg
1441 gttacattgc taggcgagat agggggaaga cagatatggg tgtttttaat aaatctaata
1501 attattcatc taatgtatta tgagccaaaa tggtttaatt ttcctgcatg tctgtgact
1561 gaagaagatg agccttgcag atatctgcat gtgtcatgaa gaatgtttct ggaattcttc
1621 acttgctttt gaattgcact gaacagaatt aagaaatact catgtgcaat aggtgagaga
1681 atgtatttcc atagatgtgt tattacttcc tcaataaaaa gttttatttt gggcctgttc
1741 ctt
1 ctgaggtggg taagagtaca atggctaaat cttaacacac tcttacgtgt acaccctacc
61 gtacaccatc cagactcgtc cccatataat caggagtgat cagtacgtaa atgcttatgg
121 tgtgatttga aggggtgtta gtagatgca tctctcacac cgcagcagca ctgcttccaa

181 ttcacccctt ggaattttat tccctgactg ttaaaagttt ttagtgctta aatattctct
241 attgaggttaa gagacagatt ctgtgcaatg ggacaattag gtcaagaggg aaagaagctg
301 aggtgatagg cagatagatt ccagaggcaa acttttccca tctgctaaag ttgaaaagag
361 taaccacat cctaccaacg ctgacaatc taggatgtag ggaaagtttg tctctggaat
421 ctatccaggt acccagttgg gactgagctt cagcttagat gtctgaagat gtttaagttat
481 agaatcaggt ttaagtctga agatgttaag ttatagaatc aggatctgag ccggtacaac
541 acgtggataa acaatgaagt cgatgttaca aatttttttt tgctacttgt aaaatctctg
601 tatcacattt ctctaggagg ctggattccg tttaggagca ctcatctact ccaggaaaag
661 gattttattt aatctttcaa catttacttt aaaaactttt tttatctata atgaatataa
721 ggaagtatta taatgaaaac caagttatca ggctttaaga aaatatattt taagttctcc
781 ttctctttta gttgcttgat atttctttta caagggtcta tttttagat aggtggacgt
841 agaggcttat ttatcatttt gaaggtaacat actctgaatt gcttgagtga tggactagat
901 gctaattgat ccattgtcgt ctgaataaag tcatgctttt gtttgcattg ttttagagat
961 agtcaaggga tgatatcaac tatgagtcac tcataggatt catattcaca gaaccggac
1021 taagggctat ataaagagga acagttcagg aacttaggct agaagggaca cagtaaactg
1081 aattgatccg tttagaagtt tacaatgaag tttcttctaa tactgtctct gcaggccact
1141 gcttctggag ctcttcccct gaacagctct acaagcctgg aaaaaataa tgtgctattg
1201 ggtgagaga

(2) INFORMATION FOR SEQ ID NO:2745:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 776 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2745

1 aaggacacgg gcagcagaca gtggtcagtc ctttcttgge tctgctgaca ctcgagccca
61 cattccgtca cctgctcaga atcatgcagg tctccactgc tgcccttgct gtccctctct
121 gcaccatggc tctctgcaac cagttctctg catcacttgc tgctgacacg ccgaccgctc
181 gctgcttcag ctacacctcc cggcagattc cacagaattt catagctgac tactttgaga
241 cgagcagcca gtgctccaag cccggtgtca tcttcttaac caagcgaagc cggcaggtct
301 gtgctgaccc cagtgaaggag tgggtccaga aatatgtcag cgacctagag ctgagtgcc
361 gaggggtcca gaagcttcga ggcccagcga cctcggtggg ccagtgggga ggagcaggag
421 cctgagcctt gggaaacatg cgtgtgacct ccacagctac ctcttctatg gactggttgt
481 tgccaaacag ccacactgtg ggactcttct taacttaaat ttttaattat ttatactatt
541 tagtttttgt aatttatttt cgatttcaca gtgtgtttgt gattgtttgc tctgagagtt
601 cccctgtccc ctcccccttc cctcacaccg cgtctgttga caaccgagtg gctgtcatca
661 gcctgtgtag gcagtcattg caccaaagcc accagactga caaatgtgta tcggtgctt
721 ttgttcaggg ctgtgatcgg cctggggaaa taataaagca cgctctttta aaaggt

(2) INFORMATION FOR SEQ ID NO:2746:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4124 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2746

1 acagccttga ccttatgtca tgggttcaac ttggacactg aaaacgcaat gaccttccaa
61 gagaacgcaa ggggcttcgg gcagagcgtg gtccagcttc agggatccag ggtggtggtt
121 ggagccccc aggatagatg ggctgccaac caaaggggca gcctctacca gtgcgactac
181 agcacaggct catgcgagcc catccgctg caggtcccg tggagccgt gaacatgtcc
241 ctgggctgt ccctggcagc caccaccagc cccctcagc tgetggcctg tgggtccacc
301 gtgcaccaga ctgacgtga gaacacgtat gtgaaaggc tctgttctct gtttgatcc
361 aacctacggc agcagcccca gaagttccca gaggccctcc gaggtgtcc tcaagaggat
421 agtgacattg ccttcttgat tgatggctct ggtagcatca tcccacatga ctttcggcgg
481 atgaaggagt ttgtctcaac tgtgatggag caattaaaaa agtccaaaac cttgttctct
541 ttgatgcagt actctgaaga attccgatt cactttacct tcaaagagtt ccagaacaac
601 cctaacccaa gatcactggt gaagccaata acgagctgc ttgggcggac acacacggcc
661 acgggcatcc gcaaaagtgt acgagagctg ttaacatca ccaacggagc ccgaaagaat
721 gcctttaaga tcctagtgt catcacggat ggagaaaagt ttggcgatcc cttgggatat
781 gaggatgtca tccctgagc agacagagag ggagtcattc gctacgtcat tggggtggga
841 gatgccttcc gcagtgagaa atcccgccaa gagcttaata ccatcgcac caagccgctt
901 cgtgatcagc tgttccaggt gaataacttt gaggctctga agaccattca gaaccagctt

961 cgggagaaga tctttgcat cgaggggtact cagacaggaa gtagcagctc ctttgagcat
 1021 gagatgtctc aggaaggctt cagcgtgcc atcacctcta atggccctt gctgagcact
 1081 gtggggagct atgactgggc tgggtggagtc tttctatata catcaaagga gaaaagcacc
 1141 ttcatcaaca tgaccagagt ggattcagac atgaatgatg cttacttggg ttatgtctgcc
 1201 gccatcatct tacggaaccg ggtgcaaacg ctggttcttg gggcacctcg atatcagcac
 1261 atcggcctgg tagcgatgtt caggcagaac actggcatgt gggagtccaa cgctaattgtc
 1321 aagggcaccc agatcggcgc ctacttcggg gcctccctct gctccgtgga cgtggacagc
 1381 aacggcagca ccgacctggt cctcatcggg gccccccatt actacgagca gacccgaggg
 1441 ggccaggtgt ccgtgtgccc cttgcccagg gggcagaggg ctcggtggca gtgtgatgct
 1501 gttctctacg gggagcaggg ccaaccctgg ggccgctttg gggcagccct aacagtgtctg
 1561 ggggacgtaa atggggacaa gctgacggac gtggccattg gggccccagg agaggaggac
 1621 aaccggggtg ctgtttacct gtttcacgga acctcaggat ctggcatcag cccctcccat
 1681 agccagcggg tagcaggctc caagctctct cccaggctcc agtatttttg tcagtcaactg
 1741 agtggggggc aggacctcac aatggatgga ctggtagacc tgactgtagg agcccagggg
 1801 cagtggtctc tgcctcaggt ccagccagta ctgagagta aggcaatcat ggagttcaat
 1861 cccagggaag tggcaaggaa tgtatttgag tgaatgatc aggtgggtgaa aggcaaggaa
 1921 gccggagagg tcagagtctg cctccatgtc cagaagagca cacgggatcg gctaagagaa
 1981 ggacagatcc agagtgttgt gacttatgac ctggctctgg actccggccg cccacattcc
 2041 cgcgccgtct tcaatgagac aaagaacagc acacgcagac agacacaggt cttggggctg
 2101 acccagactt gtgagaccct gaaactacag ttgccgaatt gcatcgagga cccagtgaagc
 2161 cccattgtgc tgcgcctgaa cttctctctg gtgggaacgc cattgtctgc tttcgggaac
 2221 ctccggccag tgcgtggcga ggtgctcag agactcttca cagccttgtt tccctttgag
 2281 aagaattgtg gcaatgacaa catctgccag gatgacctca gcatcacctt cagtttcatg
 2341 agcctggact gcctcgttgt ggtggggccc cgggagttca acgtgacagt gactgtgaga
 2401 aatgatgtgt aggactccta caggacacag gtcaccttct tcttcccgct tgacctgtcc
 2461 taccggaagg tgtccacgct ccagaaccag cgctcacagc gatcctggcg cctggcctgt
 2521 gagtctgctt cctccaccga agtgtctggg gccttgaaga gccacagctg cagcataaac
 2581 caccocatct tcccggaaaa ctcagaggtc acctttaata tcacgtttga tgtagactct
 2641 aaggcttccc ttggaacaa actgtctctc aaggccaatg tgaccagtga gaacaacatg
 2701 ccagaacca acaaaaccga attccaactg gagctgccgg tgaatatgct tgtctacatg
 2761 gtggtcacca gccatggggt ctcactaaa tatctcaact tcacggcctc agagaatacc
 2821 agtcgggtca tgcagcatca atatcaggtc agcaacctgg ggcagaggag cctccccatc
 2881 agcctggtgt tcttgggtgc cgtccggctg aaccagactg tcatatggga ccgccccag
 2941 gtacacttct ccgagaacct ctcgagtacg tgccacacca aggagcgctt gccctctcac
 3001 tccgacttct tggctgagct tcggaaggcc cccgtggtga actgtctcat cgctgtctgc
 3061 cagagaatcc agtgtgacat cccgttcttt ggcattccag aagaattcaa tgctaccctc
 3121 aaaggcaacc tctcgtttga ctggtacatc aagacctcgc ataaccacct cctgatcgtg
 3181 agcacagctg agatcttgtt taacgattcc gtgttcaccc tgctgccggg acagggggcg
 3241 tttgtgaggt ccagacgga gacaaaagtg gagccgttcg aggtcccca cccctgccg
 3301 ctcatcgttg gcagctctgt cgggggactg ctgctcctgg ccctcatcac cggcgctg
 3361 tacaagctcg gcttcttcaa gcggcaatac aaggacatga tgagtgaagg ggttccccg
 3421 ggggcccgaac cccagtagcg gctccttccc gacagagctg cctctcgggt gccagcagga
 3481 ctctgccag accacacgta gccccaggc tgctggacac gtcggacagc gaagtatccc
 3541 cgacaggagc ggcttgggct tccattttgt tgtgtgcaag tgtgtatgtg cgtgtgtgctg
 3601 agtgtgtgca agtgtctgtg tgcaagtgtg tgacgtgtc ggtgtgctg catgtgact
 3661 cgcacgcca tgtgtgagtg tgtgcaagta tgtgagtggt tccaagtgtg tgtgctgtg
 3721 tccatgtgtg tgcaagtgtg tgcatgtgtg cgagtgtgtg catgtgtgtg ctcaggggctg
 3781 tgtggctcac gtgtgtgact cagatgtctc tggcgtgtgg gtagggtgacg gccagcgtag
 3841 cctctccggc agaagggaac tgcttgggct cccttgtgctg tgggtgaagc cgctgctggg
 3901 ttttctccg ggagagggga cggtaatcc tgtgggtgaa gacagaggga aacacagcag
 3961 cttctctcca ctgaaagaag tgggacttcc cgtcgctgac agcctgcggc ctgctggagc
 4021 ctgcgcagct tggatggaga ctccatgaga agccgtgggt ggaaccagga gcctctctca
 4081 caccagcgtc gatgcccatt aaagatgccc actgaggaat gatg

(2) INFORMATION FOR SEQ ID NO:2747:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2998 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2747

1 agcaggaagg tcgcgccgcc gtcgccgccg ccgtctagct tccccgggag cgtccaggac

61 ccgctgcgcc aggcgcgcgcg tccccggacc cggcgtgcgt ccctacgagg aaagggaccc
121 cgccgctcga gccgcctccg ccagcccccac tgcgaggggt ccagagacca gccgcgcccg
181 ccctcgcccc cggcccccga gccttcccgc cctgcgcgcg atgaacgccc ccgagcggca
241 gcccacccc gacggcgggg acgccccagg ccacgagcct gggggcagcc cccaagacga
301 gcttgacttc tccatcctct tcgactatga gtatttgaat ccgaacgaag aagagccgaa
361 tgcacataag gtcgccagcc caccctccgg acccgcatat cccgatgatg taatggacta
421 tggcctcaag ccatacagcc ccttgctag tetctctggc gagcccccg gccgattcgg
481 agagccggat agggtagggc cgcagaagtt tctgagcgcg gccaaagccag caggggacctc
541 gggcctgagc cctcggatcg agatcactcc gtcccacgaa ctgatccagg cagtggggcc
601 cctcgcgatg agagacgcgg gcctcctggg ggagcagcct cccctggccg ggggtggccg
661 cagccccagg ttcaccctgc ccgtgcccg cttcgagggc taccgcgagc cgctttgctt
721 gagccccgct agcagcggct cctctgccag cttcatttct gacaccttct cccctacac
781 ctgcacctgc gtctcgccca ataacggcgg gcccgacgac ctgtgtccgc agtttcaaaa
841 catccctgct cattattccc ccagaacctc gccataatg tcacctcgaa ccagcctcgc
901 cgaggacagc tgcctggggc gccactcgcc cgtgccccgt ccggcctccc gctcctcatc
961 gcctggtgcc aagcggaggc attcgtgcgc cgaggccttg gttgccctgc cgcccgagc
1021 ctcaccccag cgctcccga gccctcggc gcagccctca tctcacgtgg caccacagga
1081 ccacggctcc cgggtgggt accccctgt ggtggtctt gccgtgatca tggatgccc
1141 gaacagcctc gccacggact cgccttggtg gatcccccc aagatgtgga agaccagccc
1201 tgacccctcg ccggtgtctg ccgccccatc caaggccggc ctgcctcgcc acatctaccc
1261 ggcctggag ttcctggggc cctgcgagca gggcgagagg agaaactcgg ctccagaatc
1321 catcctgctg gttccgccca cttggcccaa gccgctgggt cctgccattc ccatctcgag
1381 catcccagtg actgcatccc tccctccact tgagtggcgg ctgtccagtc agtcaggctc
1441 ttacgagctg cggatcgagg tgcagcccaa gccacatcac cgggccact atgagacaga
1501 aggcagccga ggggtgtgca aagctccaac tggaggccac cctgtggttc agtccatgg
1561 ctacatggaa aacaagcctc tgggacttca gatcttcatt gggacagctg atgagcggat
1621 ccctaagccg cagccttctt accaggtgca ccgaatcacg gggaaaactg tcaccaccac
1681 cagctatgag aagatagtg gcaacaccaa agtctggag atccccctgg agcccaaaaa
1741 caacatgagg gcaaccatcg actgtgcggg gatcttgaag cttagaaacg ccgacattga
1801 gctgcggaaa ggcgagacgg acattggaag aaagaacacg cgggtgagac tggttttccg
1861 agttcacatc ccagagtcca gtggcagaat cgtctcttta cagactgcac ctaaccccat
1921 cgagtgtctc cagcgatctg ctcacgagct gccatgggtt gaaagacaag acacagacag
1981 ctgcctggtc tatggcggcc agcaaatgat cctcacgggg cagaacttta catccgagtc
2041 caaagtgtgt tttactgaga agaccacaga tggacagcaa atttgggaga tgggaagccac
2101 ggtggataag gacaagagcc agcccaacat gctttttgtt gagatccctg aatatcgga
2161 caagcatatc cgcacacctg taaaagtga cttctacgtc atcaatggga agagaaaacg
2221 aagtcagcct cagcacttta cctaccaccc agtcccagcc atcaagacgg agcccacgga
2281 tgaatatgac cccactctga tctgcagccc caccatgga ggcctgggga gccagcctta
2341 ctacccccag caccgatgg tggccgagtc cccctcctgc ctgctggcca ccatggctcc
2401 ctgccagcag ttcgcgacgg ggctctcatc cctgacgccc cgctaccagc aacagaaccc
2461 agcggtcgta cttaccagc ggagcaagag cctgagcccc agcctgctgg gctatcagca
2521 gccggccctc atggccgccc cgtgtccct tgccgagcgt caccgctctg tgctggtgca
2581 cgccgctcc cagggccaga gctcagccct gctccacccc tctccgacca accagcaggc
2641 ctgcctgtg atccactact caccaccaa ccagcagctg cgctgcggaa gccaccagga
2701 gttccagcac atcatgtact gcgagaattt cgcaccaggc accaccagac ctggcccgc
2761 cccggtcagt caaggtcaga ggctgagccc gggttcctac cccacagtca ttcagcagca
2821 gaatgccacg agccaaagag ccgcaaaaaa cggacccccg gtcagtgacc aaaaggaagt
2881 attacctgcg ggggtgacca ttaaacagga gcagaacttg gaccagacct acttgatga
2941 tgtaatatgaa attatcagga aggagttttc aggacctcct gccagaaatc agacgtaa

(2) INFORMATION FOR SEQ ID NO:2748:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3784 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2748

1 gctgcagcac cctgggccac gccgatgact actgcaaaact gtggcgccca cgacgagctc
61 gacttcaaac tcgtcttttg cgaggacggg gcgcggcgcc cgccgcccc gggtcgcgg
121 cctgcagatc ttgagccaga tgattgtgca tccatttaca tctttaatgt agatccacct
181 ccactactat taaccacacc actttgctta ccacatcatg gattaccgtc tcaactctct
241 gttttgtcac catcgtttca gtcctaaagt cacaataaact atgaaggaac ttgtgagatt

301 cctgaatcta aatatagccc attaggtggt cccaaaccct ttgagtgcc aagtattcaa
361 attacatcta tctctcctaa ctgtcatcaa gaattagatg cacatgaaga tgacctacag
421 ataatgacc cagaacggga atttttggaa aggccttcta gagatcatct ctatcttcc
481 cttgagccat cctaccggga gtcttctctt agtcctagtc ctgccagcag catctcttct
541 aggagtgtgt tctctgatgc atcttcttgt gaatcgcttt cacatattta tgatgatgtg
601 gactcagagt tgaatgaagc tgcagccga tttacccttg gatccctct gacttctcct
661 ggtggctctc cagggggctg ccctggagaa gaaacttggc atcaacagta tggacttggg
721 cactcattat caccagggca atctccttgc cactctccta gatccagtgt cactgatgag
781 aattggctga gcccagggc agcctcagga cctcatcaa ggcccacac ccctgtggg
841 aaacggaggc actccagtgc tgaagtttgt tatgtctggg ccttttcacc ccatcactca
901 cctgttccct cacctggtca ctccccagg ggaagtgtga cagaagatac gtggctcaat
961 gcttctgtcc atgtgtgggc aggccttggc cctgcagttt tccatttca gtactgtga
1021 gagactgaca tccctctcaa aacaaggaaa acttctgaag atcaagctgc catactacca
1081 ggaaaattag agctgtgttc agatgaccaa gggagtattat caccagcccg ggagacttca
1141 atagatgatg gccttggatc tcagtatcct ttaaagaaa attcagtgtg tgatcagttt
1201 ctttcagttc cttcaccctt tacttggagc aaaccaaagc ctggccacac ccctatattt
1261 cgcacatctt cattacctcc actagactgg cctttaccag ctcattttgg acaatgtgaa
1321 ctgaaaatag aagtgcaccc taaaactcat catcgagccc attatgaaac tgaaggtagc
1381 cgaggggagc taaaagcatc tactggggga catcctgttg tgaagctcct gggctataac
1441 gaaaagccaa taaatctaca aatgtttatt gggacagcag atgatcgata tttacgacct
1501 catgcatttt accaggtgca tcgaatcact ggaagacag tcgctactgc aagccaagag
1561 ataataattt ccagtacaaa agttctggaa attccacttc ttcctgaaaa taatatgtca
1621 gccagtattg attgtgcagg tattttgaaa ctccgcaatt cagatataga acttcgaaaa
1681 ggagaaactg atattggcag aaagaatact agagtacgac ttgtgttctg tgtacacatc
1741 ccacagccca gtggaaaagt cctttctctg cagatagcct ctataccctg tgagtgtctc
1801 cagcggctct ctcaagaact tctcatattt gagaagtaca gtatcaacag ttgttctgta
1861 aatggaggct atgaaatggt tgtgactgga tctaatttcc tccagaatc caaaatcatt
1921 tttcttgaia aaggacaaga tggacgacct cagtgggagg tagaaggga gataatcagg
1981 gaaaatgtc aaggggctca cattgtcctt gaagtccctc catatcataa ccagcagtt
2041 acagctgagc tgcaggtgca cttttatctt tgcaatggca agaggaaaaa aagccagttc
2101 caacgtttta ctatacacc agttttgtct aagcaagaac acagagaaga gattgatttg
2161 tcttcagttc catctttgcc tgtgcctcat cctgctcaga cccagaggcc ttcctctgat
2221 tcaggggtgt cacatgacag tgtactgtca ggacagagaa gtttgatttg ctccatccca
2281 caaacatatg catccatggt gacctcatcc catctgccac agttgcagtg tagagatgag
2341 agtggttagta aagaacagca tatgattcct tctccaattg tacaccagcc ttttcaagtc
2401 acaccaacac ctccgtgtgg gtcttctctat cagcctatgc aaactaatgt tgtgtacaat
2461 ggaccaactt gtcttctctat taatgtctgc tctagtcaag aatttgattc agtttggttt
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2701 tctctttctt ctccagtggg tgaccagatt acaggtcagc cttcgtctca gttacaacct
2761 attacatatg gtccttcaca ttcagggtct gttacaacag cttccccagc agcttctcat
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2881 caatctccta gctcaggaac tggctcatca cctctccag ccaccagaat gcattctgga
2941 cagcactcaa ctcaagcaca aagtacgggc caggggggtc tttctgcacc ttcactctta
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3121 ttagatgatg accaatttat atctgacttg gaacaccagc catcaggttc agcagagaaa
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3481 aaagtagcat tctccacctc caggccttgg gtagatttgg caaaagaaca ggagcagcat
3541 aggtgttttg agctttgggg aaatgaactt tgctttttat atttaactag gatactttta
3601 aatgatgggt gctttgagtg tgaatccagc aggtctcttt gtttccgagg tctgtctttt
3661 gcaggtgacc tggttactta actaggagtg gtgatttgtg ctgctttatg gtcatttgaa
3721 gggcccttta gtttttatga taatttttaa aataggaaact tttgataaga ccttctagaa
3781 gcaa

(2) INFORMATION FOR SEQ ID NO:2749:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3769 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2749

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1 gctgcagcac cctgggccac gccgatgact actgcaaact gtggcgccca cgacgagctc
61 gacttcaaac tcgtcttttg cgaggacggg ggcgcggcgc cgccgcccc gggctcgcgg
121 cctgcagatc ttgagccaga tgattgtgca tccatttaca tctttaatgt agatccacct
181 ccattctact taaccacacc actttgctta ccacatcatg gattaccgtc tcactcttct
241 gttttgtcac catcgtttca gtcctaaagt cacaaaaact atgaaggaaac ttgtgagatt
301 cctgaatcta aatatagccc attaggtggg cccaaaccct ttgagtgccc aagtattcaa
361 attacatcta tctctcctaa ctgtcatcaa gaattagatg cacatgaaga tgacctacag
421 ataaatgacc cagaacggga atttttggaa aggccttcta gagatcatct ctatcttctt
481 cttgagccat cctaccggga gtctctctct agtcctagtc ctgccagcag catctcttct
541 aggagttggg tctctgatgc atctcttctt gaatcgcttt cacatattta tgatgatgtg
601 gactcagagt tgaatgaagc tgcagcccca tttacccttg gatccctctt gactctctct
661 ggtggctctc cagggggctg ccctggagaa gaaacttggc atcaacagta tggacttgga
721 cactcattat caccagggca atctccttgc cactctccta gatccagtggt cactgatgag
781 aattggctga gccccaggcc agcctcagga cctcatcaa ggccacatc cccctgtggg
841 aaacggaggg actccagtg cgaagtcttg tatgctgggt ccccttcacc ccatcactca
901 cctgttctct cacctgggta ctccccagg ggaagtgtga cagaagatac gtggctcaat
961 gcttctgtcc atggtggggt aggccttggc cctgcagttt ttccatttca gtactgtgta
1021 gagactgaca tccctctcaa aacaaggaaa acttctgaag atcaagctgc catactacca
1081 ggaaaattag agctgtgttc agatgaccaa gggagtttat caccagcccg ggagacttca
1141 atagatgatg gccttggatc tcagtatcct ttaaagaaaag attcatgttg tgatcagttt
1201 ctttcagttc cttcacctct tacctggagc aaaccaaagc ctggccacac ccctatattt
1261 cgcacatctt cattacctcc actagactgg cctttaccag ctcatcttgg acaatgtgaa
1321 ctgaaaatag aagtgcaccc taaaactcat catcgagccc attatgaaac tgaaggtagc
1381 cgaggggagc taaaagcacc tactggggga catcctgttg tgaagctcct gggctataac
1441 gaaaagccaa taaatctaca aatgtttatt gggacagcag atgatcgata tttacgacct
1501 catgcatttt accaggtgca tcgaatcact gggaaagacag tcgctactgc aagccaagag
1561 ataataattg ccagtacaaa agttctggaa attccacttc ttctgaaaa taatatgtca
1621 gccagtattg attgtgcagg tattttgaaa ctccgcaatt cagatataga acttcgaaaa
1681 ggagaaactg atattggcag aaagaatact agagtacgac ttgtgtttcg tgtacacatc
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1801 cagcgggtctg ctcaagaact tctcatatt gagaagtaca gtatcaacag ttgttctgta
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1921 tttcttgaaa aaggacaaga tggacgacct cagtgggagg tagaaggga gataatcagg
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2041 acagctgcag tgcaggtgca cttttatctt tgcaatggca agaggaaaaa aagccagctt
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2281 caaacatatg catccatggt gacatcatcc catctgccac agttgcagtg tagagatgag
2341 agtgtagta aagaacagca tatgattcct tctccaattg tacaccagcc ttttcaagtc
2401 acaccaacac ctctgtggg gtcttctctat cagcctatgc aaactaatgt tgtgtacaat
2461 ggaccaactt gtcttctctat taatgtctgc tctagtcaag aatttgattc agtttggttt
2521 cagcaggatg caactctttc tggtttagtg aatcttggct gtcaaccact gtcattccata
2581 ccatttctatt cttcaaatte aggtctcaaca ggacatctct tagcccatc acctcattct
2641 gtgcataccc tgcctcatct gcaatcaatg ggatattcatt gttcaaatc aggacaaaaga
2701 tctctttctt ctccagtggtg taccagatt acaggtcagc cttcgtctca gttacaacct
2761 attacatatg gtcttctaca ttcagggtct gttacaacag cttccccagc agcttctcat
2821 cccttgggta gttcacgct tttctggcca ccatctctc agtttcagcc tatgccttac
2881 caatctccta gtcaggaaac tggctcatca cgtctccag ccaccagaat gcattctgga
2941 cagcactcaa ctcaagcaca aagtacgggc caggggggtc tttctgcacc ttcactctta
3001 atatgtcaca gtttgtgtga tccagcgtca tttccacctg atggggcaac tgtgagcatt
3061 aaacctgaac cagaagatcg agagcctaac tttgcaacca ttggtctgca ggacatcact
3121 ttgatgatg atttgtttac cagtaataat tttgacttgc ttcagttgag acctacgttt
3181 tggccagttc cagcaggaag atatctgagg aatctagagt gaacgagata attgggagag
3241 acatgtccca gatttctgtt tcccaaggag caggggtgag caggcaggct cccctcccgga
3301 gtctgagtc cctggattta ggaagatctg atgggctcta acagtgtcta ctgcagcctt
3361 gtgtccacca ccaacttctc agcatgtttc tctccttggga ccttgggttt ccaactcttc

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3421 aaccttcagg tctggggcca ggagtgaggc ccaccatttg tggggaaagt agcattcctc
 3481 cacctcaggc cttgggtaga tttggcaaaa gaacaggagc agcataggct gtttgagctt
 3541 tggggaaatg aactttgctt tttatattta actaggatac ttttaaataga tgggtgcttt
 3601 gagtgtgaat ccagcaggct ctcttggttc cgagggtgctg cttttgcagg tgacctgggt
 3661 acttaactag gagtggtgat ttgtactgct ttatgggtcat ttgaagggcc ctttagtttt
 3721 tatgataatt tttaaaatag gaacttttga taagaccttc tagaagcaa

(2) INFORMATION FOR SEQ ID NO:2750:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3583 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2750

1 gctgcagcac cctggggccac gccgatgact actgcaaaact gtggcgccca cgacgagctc
 61 gacttcaaac tegtcttttg cgaggacggg gcgcggcgcc cgcgcggccc gggctcgcgg
 121 cctgcagatc ttgagccaga tgattgtgca tccattttaca tctttaatgt agatccacct
 181 ccatctactt taaccacacc actttgctta ccacatcatg gattaccgtc tcactcttct
 241 gttttgtcac catcgtttca gtcctaaaagt cacaaaaact atgaaggaaac ttgtgagatt
 301 cctgaatcta aatatagccc attagggtgt cccaaaccct ttgagtgcgc aagtattcaa
 361 attacatcta tctctcctaa ctgtcatcaa gaattagatg cacatgaaga tgacctacag
 421 ataaatgacc cagaacggga atttttggaa aggccttcta gagatcatct ctatcttctc
 481 cttgagccat cctaccggga gtcttctctt agtcctagtc ctgccagcag catctcttct
 541 aggagttggt tctctgatgc atcttcttgt gaatcgcttt cacatattta tgatgatgtg
 601 gactcagagt tgaatgaagc tgcagcccgga tttacccttg gatccctctt gacttctcct
 661 ggtggctctc cagggggctg ccctggagaa gaaacttggc atcaacagta tggacttgga
 721 cactcattat caccagggca atctccttgc cactctccta gatccagtgt cactgatgag
 781 aattggctga gccccaggcc agcctcagga cctcatcaa ggcccacatc ccctgtggg
 841 aaacggaggc actccagtgc tgaagtttgt tatgctgggt ccctttcacc ccatcactca
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 1081 ggaaaattag agctgtgttc agatgaccaa gggagtttat caccagcccg ggagacttca
 1141 atagatgatg gccttggatc tcatgtatct ttaaagaaaag attcatgtg tgatcagttt
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 1261 cgacatctct cattacctcc actagactgg cctttaccag ctcatcttgg acaatgtgaa
 1321 ctgaaaatag aagtgaaccc taaaactcat catcgagccc attatgaaac tgaaggtagc
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 1441 gaaaagccaa taaatctaca aatgtttatt gggacagcag atgatcgata tttacgacct
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 2041 acagctgcag tgcaggtgca cttttatctt tgcaatggca agaggaaaaa aagccagtct
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 2281 caaacatatg catccatggt gacctcatcc catctgccac agttgcagtg tagatgtgag
 2341 agtgtagtag aagaacagca tatgattcct tctccaattg tacaccagcc ttttcaagtc
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 2461 ggaccaactt gtcttctctat taatgtgccc tctagtcaag aatttgattc agtttggttt
 2521 cagcaggatg caactcttct tggtttagtg aatcttggct gtcaaccact gtcattccata
 2581 caatttcatt ctccaattc aggtctcaaca ggacatctct tagcccatc acctcattct
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 2761 attacatatg gtccctcaca ttcagggtct gttacaacag cttccccagc agcttctcat
 2821 cccttggtga gttccacgct ttctggggcca ccatctctct agtttcagcc tatgccttac

2881 caatctccta gctcaggaac tggctcatca cegtcctccag ccaccagaat gcattctgga
 2941 cagcactcaa ctcaagcaca aagtacgggc caggggggtc tttctgcacc ttcactctta
 3001 atatgtcaca gtttgtgtga tccagcgtca tttccacctg atggggcaac tgtgagcatt
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 3181 attctcccaa gtgtcatgaa aaagtttcta tggattgctt attggcataat ggttgggctt
 3241 ttaataaagt tgttattaga aatatatggt aatatataac tttgccaggt accacggctc
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 3361 agaccagcct ggccaacatg gtgtaacgct gtctctacta aaaatacaaa aaattagcca
 3421 ggcatgggtg tgtgtgacta taatcccagc tactcgggag gctgagacag gagaatcact
 3481 tgaacccggg aggtggcagt tgcaggagc taagatcgcg ccattgcact ccagcctggg
 3541 cggcagagca agactccgtc tcgggaaaaa aaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2751:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2935 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2751

1 gaattccggg cgggagaaac cgaacccctg gcggccgcga ccccggtccc cggcccggcc
 61 ccggcccagc ccgccatgac ggggtctggag gaccaggagt tcgacttcga gttcctcttc
 121 gagtttaacc agcgcgacga gggcgccgcc gcggccgccc cagaacacta tggctatgca
 181 tcctccaacg tcagccccgc cctgcgcgtc cccacggcgc actccacctt gccggccccg
 241 tgcacaaacc ttacagacct cacaccgggc atcatcccg cgcggtatca cccctcgggg
 301 tacggagcag ctttgacggt tgggctgctg ggctacttcc tctcctccgg ccacaccagg
 361 cctgatgggg cccctgccct ggagagtcct cgcacgcaga taacctcgtg cttggggctg
 421 taccacaaca ataaccagtt ttccacgat gtggagggtg aagacgtcct ccttagctcc
 481 aaacgggtccc cctccacggc cacgctgagt ctgccagccc tggaggccta cagagacccc
 541 tcgtgcctga gcccggccag cagcctgtcc tcccgagct gcaactcaga ggcctcctcc
 601 tacgagtcca actactcgtc cccgtacgag tccccccaga cgtcgccatg gcagtctccc
 661 tgcgtgtctc ccaagaccac ggaccccgag gagggtcttc ccccggggct gggggcctgc
 721 aactgctga gttccccgcg gcactccccc tccactcgc ccccgccag cgtcactgag
 781 cagagctggc tgggtgcccg ctctccaga cccgcgtccc cttgcaacaa gaggaagtac
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 961 agctcggcca tcgtggccgc catcaacgag ctgaccaccg acagcagcct ggacctggga
 1021 gatggcgtcc ctgtcaagtc ccgcaagacc accctggagc agccgcctc agtggcgctc
 1081 aaggctggag ccgtcgggga ggacctgggc agccccccgc ccccggccga cttcgcgccc
 1141 gaagactact cctctttcca gcacatcagg aaggcggtct tctgcgacca gtacctggcg
 1201 gtgcgcgagc acccctacca gtggcggaag cccaagcccc tgtcccctac gtccctacatg
 1261 agcccgaccc tgcgcgcctt ggactggcag ctgcgcgtcc actcaggccc gtatgagctt
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 1381 ggggcccgtg aggcgtcggc cggaggacac cccatcgtgc agctgcatgg ctacttggag
 1441 aatgagccgc tgatgtgca gcttttcatt gggacggcgg acgacgcctt gctgcgcccg
 1501 cagccttct accaggtgca ccgcatcaca ggaagaccg tgtccaccac cagccacgag
 1561 gccatcctct ccaacaccaa agtcctggag atcccactcc tgcggagaaa cagcatgcga
 1621 gccgtcattg actgtgccgg aatcctgaaa ctcaaaaact ccgacattga acttcggaaa
 1681 ggagagacgg acatcgggag gaagaacaca cgggtacggc tgggtgtccg cgttcacgtc
 1741 ccgcaaccca gcggccgcac gctgtccctg caggtggcct ccaaccccat cgaatgctcc
 1801 cagcgtcag ctccaggagt gcctctgttg gagaagcaga gcacggacag ctatccggtc
 1861 gtggcgggga agaagatggt cctgtctggc cacaacttcc tgcaggactc caaggtcatt
 1921 ttcgtggaga aagccccaga tggccaccat gtctgggaga tggaaagcaa aactgacgg
 1981 gacctgtgca agccgaattc tctggtggtt gagatccgc cgtttcggaa tcagaggata
 2041 accagccccg ttacagtcag tttctacgtc tgcaacggga agagaaagcg aagccagtac
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 2221 tactacagcc agcagctgc gatgccaccc gacccagctt cctgcctcgt gccggcttc
 2281 ccgccctgtc cgcagagaag caccctgatg ccagcggccc ctggcgtgag cccaagctc
 2341 cagcacttt ctcccgtgc ctacaccaag ggcgttgcca gccggggcca ctgtcacctc
 2401 ggactccgc agccggcccg agagccccc gccgtccagg acgtgccag gccagtgcc
 2461 acgacccccg gctcgcccg gcagccaccc ccggccctgc tgccacagca gtaaatgaaa

2521 taatacgaaa tgacctctcc agcagcagca cccactccta gttgccacat tggagcactc
 2581 agttcagcag gggatgtctg acttcagcag acaagactt ttgaataaat aaactgaact
 2641 cacacctggt accactcaga acctccaact gactgaatgc caggagctga acattaatat
 2701 gtgcaaagat tggctctcca acaagaagga aagcagggag gaagggagac cactgtgtcg
 2761 cctggaggag aagtcattct atgacaacag aaggagggtg gccgggctga gcacggagac
 2821 ccaccgtgca ggggcctttc atgggaacgg cccacacgca gtttgacccc acgccagacc
 2881 cttctggcac ccttggggtt caatactgga agtgccttat ttaaccagac catca

(2) INFORMATION FOR SEQ ID NO:2752:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17069 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2752

1 agcaggaagc tgcgcgccgc gtcgcgccgc cgcctcagct tccccgggag cgtccaggac
 61 cgcctgcgcc aggcgcgccg tccccggacc cgcctgcgct ccctacgagg aaagggaccc
 121 cgcctgcgcc ggcgcctccg ccagccccac tgcgaggggt ccagagacca gccgcgccgc
 181 cctcgcgcc cggccccgca gccttcccgc cctgcgcgcc atgaacgccc ccgagcggca
 241 gcccacaacc gacggcgggg acgccccagg ccacgagcct gggggcagcc cccaagacga
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3481 tgaaccggg aggtggcagt tgcaggagc taagatcgcg ccattgcact ccagcctggg
3541 cggcagagca agactccgtc tcgggaaaaa aaaaaaaaaa aaa
1 gaattccggg ccgggagaac cgaacccctg gcggccgcga ccccggtcc cgcgccggcc
61 ccggcccgac ccgcatgac ggggctggag gaccaggagt tcgacttcga gtctctcttc
121 gagtttaacc agcgcgacga gggcgccgcc gcggccggccc cagaacacta tggctatgca
181 tcctccaacg tcagcccccgc cctgccgctc cccacggcgc actccaccct gccggccccc
241 tgccacaacc ttccagacctc cacaccgggc atcatcccg cggcgatca cccctcgggg
301 tacggagcag ctttgacagg tgggcctgcg ggctaattcc tctcctccgg ccacaccagg
361 cctgatgggg cccctgccct ggagagtcct cgcacgcaga taacctcgtg cttgggcctg
421 taccacaaca ataaccagtt ttccacgat gtggagggtg aagacgtcct ccctagctcc
481 aaacgggtccc cctccacggc cagctgagt ctgccagcc tggaggccta cagagacccc
541 tcgtgcctga gcccgccag cagcctgtcc tcccgagct gcaactcaga ggccctctcc
601 tacgagtcca actactcgtt cccgtacgcg tccccccaga cgtcgccatg gcagtctccc
661 tgcgtgtctc ccaagaccac ggaccccgag gagggtcttc ccccggggtt gggggcctgc
721 aactgctga gttccccgcg gactccccc tccacctgc cccgcgcag cgtcactgag
781 gagagctggc tgggtgcccg ctctccaga cccgctccc cttgcaaca gaggaagtac
841 agcctcaacg gccggcagcc gccctactca cccaccact cgcacacgc atccccgcac
901 ggctcccccg gggtcagcgt gaccgacgac tcgtggttg gcaacaccac ccagtacacc
961 agctcggcca tcgtggccgc catcaacgcg ctgaccaccg acagcagcct ggacctggga
1021 gatggcgctc ctgtcaagtc ccgcaagacc accctggagc agccgcctc agtggcgctc
1081 aaggtggagc ccgtcgggga ggacctgggc agccccccgc ccccgccga cttcgcgcc
1141 gaagactact cctctttcca gcacatcagg aagggcggtt tctgcgacca gtacctggcg
1201 gtgccgcagc acccctacca gtgggcgaag cccaagcccc tgcctctac gtcctacatg
1261 agcccgacc cgcggccct ggactggcag ctgccgtccc actcaggccc gtatgagctt
1321 cggattgagg tgcagcccaa gtcccaccac cgagccact acgagacgga gggcagcccg
1381 ggggcgctga aggcgtcggc cggaggacac cccatcgtgc agctgcatgg ctacttgag
1441 aatgagccgc tgatgctgca gcttttcatt gggacggcgg acgaccgctt gctgcgccg
1501 cagcctttct accaggtgca ccgcatcaca gggaagaccg tgtccaccac cagccacgag
1561 gccatcctct ccaacaccaa agtcctggag atccactcc tgcggagaa cagcatgca
1621 gccgtcattg actgtgccg aatcctgaaa ctcagaaact ccgacattga acttcggaaa
1681 ggagagacgg acatcgggag gaagaacaca cgggtacggc tgggtgttcg cgttcacgtc
1741 ccgcaacca gcggccgcac gctgtccctg caggtggcct ccaaccccat cgaatgctcc
1801 cagcgtcag ctcaggagct gcctctggtg gagaagcaga gcacggacag ctatccggtc
1861 gtggggggga agaagatggt cctgtctggc cacaacttcc tgcaggactc caaggtcatt
1921 ttcgtggaga aagccccaga tggccaccat gtctgggaga tggaaagcga aactgaccgg
1981 gacctgtgca agccgaattc tctggtggtt gagatccgc cgtttcggaa tcagaggata
2041 accagcccg ttacgctcag tttctacgtc tgcaacggga agagaaagcg aagccagtac
2101 cagcgtttca cctaccttcc cgccaacgtt ccaattataa aaacagaacc cactgatgat
2161 tatgagcctg ctccaacctg tggaccggtg agccagggtt taagtctct cccaagacca
2221 tactacagcc agcagctcgc gatgccaccc gacccagct cctgcctcgt ggccggcttc
2281 ccgacctgtc cgcagagaag caccctgatg ccagcggccc ctggcgtgag ccccaagctc
2341 cagcaccctt ctcccgctgc ctacaccaag ggcgttgcca gcccgggcca ctgtcacctc
2401 ggactccgc agccggcccg agaggcccc gccgtccagg acgtgccag gccagtggcc
2461 acgcaccccg gctcgcggcg gcagccaccc ccggccctgc tgccacagca gtaaatgaaa
2521 taatacga aa tgacctctcc agcagagca cccactccta gttgccacat tggagcactc
2581 agttcagcag gggatgctg acttcagcag acaaagactt tgaataaat aaactgaact
2641 cacacctggt accactcaga acctccaact gactgaatgc caggagctga acattaatat
2701 gtgcaaagat tggctctcca acaagaagga aagcaggag gaaggagac cactgtgtcg
2761 cctggaggag aagtcattct atgacaacag aagggaggtg gccgggctga gcacggagac
2821 ccaccgtgca ggggccttcc atgggaacgg cccacacgca gtttgacccc acgcccagcc
2881 cttctggcac cctgggggtt caatactgga agtgccttat ttaaccagac catca

(2) INFORMATION FOR SEQ ID NO:2753:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 261 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2753

1 gaattcccaa gccgccccg accgctgct acgcgggggc cgcgccggcg ccctcgcagg

61 tcaagagcaa ggccaagaag accgtggaca agcacagcga cgagtacaag atccggcgcg
121 agcgcaacaa catcgccgtg cgcaagagcc gcgacaaggc caagatgcgc aacctggaga
181 cgcagcaciaa ggtcctggag ctcacggccg agaacgagcg gctgcagaag aaggtggagc
241 agctgtcgcg cgaggaatt c

(2) INFORMATION FOR SEQ ID NO:2754:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1910 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2754

1 gtccttcgcg tcccggcgcg gcggcgagg ggccggcggt tgctacgggc
61 cgcccttata aataaccggg ctcaggagaa acttttagcga gtcagagccg cgcacgggac
121 tgggaagggg acccaccga ggtccagcc accagcccc tactaataag cgccacccc
181 ggcagcgcg cgagcagcag cagcgacgca gcggcgacag ctcagagcag ggaggccgcg
241 cactgtcgcg ccggcgagg cgggcagccc caggccccct cccggggcac ccgcgttcat
301 gcaacgcctg gtggcctggg acccagcatg tctccccctg ccggcgccgc cgctgcctt
361 taaatccatg gaagtggcca acttctacta cgaggcgagc tgcttggtg ctgcgtacgg
421 cggcaaggcg gcccccgcg cgcccccgcg ggccagaccc ggcccgcgcc ccccccgcg
481 cgagctggcg agcatcgcg accacgagcg cgccatcgac ttcagcccgt acctggagcc
541 gctggggcg cgcgaggccc cgggcgccgc cagggccacg gacaccttcg aggcggctcc
601 gcccgcgccc gcccccgcg ccgcctcctc cgggcagcac cagcacttcc tctccgacct
661 cttctccgac gactacgggg gcaagaactg caagaagccg gccagtagc gctacgtgag
721 cctggggcg cggtgggctg ccaaggcgcg gctgcacccc ggctgcttcg cgccccctga
781 cccaccgccc ccggcgccgc cgcccgccgc cgagctcaag gcggagcccg gcttcgagcc
841 cgcgagctgc aagcggaagg agggagcccg ggcccgggc ggccggcgag gcatggcgcc
901 gggcttcccg tacgcgctgc gcgcttacct cggtaccag gcggtgcga gcggcagcag
961 cgggagcctc tccacgtcct cctcgtccag cccgccccgc acgcccagcc ccgctgacgc
1021 caaggccccc ccgaccgct gctacgcggg ggccggggcg gcgcccctgc aggtcaagag
1081 caaggccaa gaccgctg acaagcacag cgacgagtag aagatccggc gcgagcgcaa
1141 caacatcgcc gtgcgcaaga gccgcgacaa ggccaagatg cgcaacctg agacgcagca
1201 caagtcctg gagctcacg ccgagaacga gcggtgcag aagaagggtg agcagctgtc
1261 gcgcgagctc agcacctgc ggaacttggt caagcagctg cccgagcccc tgctcgctc
1321 ctccggccac tgctagcgcg gcccccgcg cgtccccctg gggccggccg gggctgagac
1381 tccggggagc gcccgcgccc gcgcccctgc cccncccc nnnnccgcaa aactttggca
1441 ctggggcact tggcagcngg ggagcccgtc ggtatattta atattttatt atatatatat
1501 atctatatat tgccaaccaa ccgtacatgc agatggctcc cgcccggtgt gtataaagaa
1561 gaaatgtcta tgtgtacaga tgaatgataa actctctgct ctcctctgct ccctctccag
1621 gccggcgggg cgggcgccgt ttcgaagttg atgcaatcgg tttaaacatg gctgaacggc
1681 tgtgtacacg ggaactgacg aacccacgtg taactgtcag ccgggcccct agtaatcgct
1741 taaagatggt ctagggtgtg ttgctgttga tgttttgtt tgttttgtt tttggtctt
1801 ttttgtatta taaaaataa tctatttcta tgagaaaaga ggctgtctga tattttggga
1861 atcttttccg tttcaagcaa ttaagaacac ttttaataaa cttttttttg

(2) INFORMATION FOR SEQ ID NO:2755:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2171 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2755

1 gaattcccaa ggcgccccg accgcctgct acgcgggggc cgcgccggcg ccctcgagg
61 tcaagagcaa ggccaagaag accgtggaca agcacagcga cgagtacaag atccggcgcg
121 agcgcaacaa catcgccgtg cgcaagagcc gcgacaaggc caagatgcgc aacctggaga
181 cgcagcaciaa ggtcctggag ctcacggccg agaacgagcg gctgcagaag aaggtggagc
241 agctgtcgcg cgaggaatt c
262 gtccttcgcg tcccggcgcg gcggcgagg ggccggcggt acgcagcggt tgctacgggc
322 cgcccttata aataaccggg ctcaggagaa acttttagcga gtcagagccg cgcacgggac
382 tgggaagggg acccaccga ggtccagcc accagcccc tactaataag cgccacccc
442 ggcagcgcg gcagcagcag cagcgacgca gcggcgacag ctcagagcag ggaggccgcg
502 cactgtcgcg ccggcgagg cgggcagccc caggccccct cccggggcac ccgcgttcat
562 gcaacgcctg gtggcctggg acccagcatg tctccccctg ccggcgccgc cgctgcctt

622 taaatccatg gaagtggcca acttctacta cgaggcggac tgcttggtg ctgcgtacgg
682 cggcaaggcg gcccccgcg cgcccccgcg ggccagaccc gggccgcgccc cccccgcggg
742 cgagctggcg agcatcgcg accacgagcg cgccatcgac ttcagcccg accctggagcc
802 gctgggcgcg ccgcaggccc cggcgcccg caccggccacg gacaccttcg agggggctcc
862 gcccgcgccc gcccccgcg ccgcctcctc cgggcagcac caccgacttc tctccgacct
922 cttctccgac gactacgggg gcaagaactg caagaagccg gccgagtacg gctacgtgag
982 cctggggcg cggggggctg ccaaggcgcg gctgcacccc ggctgcttcg cgccctgca
1042 cccacgcccc ccgcccgcgc cgcccgcgc cgagctcaag gcggagccgg gcttcgagcc
1102 cgcggactgc aagcggaagg aggaggccgg ggcccgggcg ggccggcgag gcatggcggc
1162 gggcttcccg tacgcgtgc gcgcttacct cggctaccag gcggtgccga gcggcagcag
1222 cgggagcctc tccacgtcct cctcgtccag cccgcccggc acgcccagcc ccgctgacgc
1282 caagcccccc ccgaccgct gctacgcggg ggccggcgcg gcgcccgcg aggtcaagag
1342 caagcccaag aagaccgtgg acaagcacag cgacgagtac aagatccggc gcgagcgcaa
1402 caacatcgcc gtgcgcaaga gccgcgacaa ggccaagatg cgcaacctgg agacgcagca
1462 caaggtcctg gagctcacgg ccgagaacga gcggtgcgag aagaaggtgg agcagctgtc
1522 gcgcgagctc agcaccctgc ggaacttggt caagcagctg cccgagcccc tgctcgccctc
1582 ctccggccac tgctagcgcg gcccgcgcg cgtcccccgt gggccggccg gggctgagac
1642 tccggggagc gcccgcgccc gcgcctcgc ccccncccc nnnnccgcaa aactttggca
1702 ctggggcact tggcagcngg ggagcccgtc ggtaatttta atattttatt atatatatat
1762 atctatatatt tgccaaccaa ccgtacatgc agatggctcc cgcccgtggt gtataagaa
1822 gaaatgtcta tgtgtacaga tgaatgataa actctctgct ctccctctgc cctctccag
1882 gcccggcggg ccgggcccgt ttcgaagtgg atgcaatcgg tttaaacatg gctgaacgag
1942 tgtgtacacg ggactgacgc aaccacgtg taactgtcag ccgggcccgt agtaatcgct
2002 taaagatggt ctagggcttg ttgctgttga tgttttgtt tgttttgtt tttggtctt
2062 tttgttatta taaaaataa tctatttcta tgagaaaaga ggcgtctgta tattttggga
2122 atcttttccg tttcaagcaa ttaagaacac ttttaataaa cttttttttg

(2) INFORMATION FOR SEQ ID NO:2756:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2426 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2756

1 gaccagagca atttctgctt ttcacagggc gggtttctca acggtgactt gtgggcagtg
61 ccttctgctg agcaggtcat ggcccgaagg cagaactaac tgtgcctgca gtcttcactc
121 tcaggatgca gccgaggtgg gcccgaagg ccacgatgtg gcttgagtc ctgctgaccc
181 ttctgctctg ttcaagcctt gagggtaaac aaaactcttt cacaatcaac agtgttgaca
241 tgaagagcct gccgactgg ccggtgcaaa atgggaagaa cctgacctg cagtgtctcg
301 cggatgtcag caccacctct cactgcaagc ctcagcacca gatgtgttc tataaggatg
361 acgtgtgtt ttacaacatc tctccatga agagcacaga gagttatatt attcctgaag
421 tccggatcta tgactcaggg acatataaat gtactgtgat tgtgaacaac aaagagaaaa
481 cactgcaga gtaccagggt ttggtggaag gactgcccag tcccagggtg aactgggaca
541 agaaagaggg catccaaggt gggatcgtag ggtcaactg ttctgtccca gaggaagagg
601 ccccaataca cttcacaatt gaaaaacttg aactaaatga aaaaatggtc aagctgaaaa
661 gagagaagaa ttctcgagac cagaattttg tgatactgga attccccgtt gaggaacagg
721 accgcgtttt atccttccga tgtcaagcta ggatcatttc tgggatccat atgcagacct
781 cagaatctac caagagtga cttgtcaccg tgacggaatc cttctctaca cccaagtctc
841 acatcagccc caccggaatg atcatggaag gagctcagct ccacattaa gtcaccattc
901 aagtgactca cctggcccag gagtttccag aaatcataat tcagaaggac aaggcgattg
961 tggcccacaa cagacatggc aacaaggctg tgtactcagt catggccatg gtggagcaca
1021 gtggcaacta cagtgcaaaa gtggagtcca gccgcatac caaggtcagc agcatcgtag
1081 tcaacataac agaactattt tccaagccc aactggaatc ttcttcaca catctggacc
1141 aaggtgaaag actgaacctg tccgtctcca tcccaggagc acctccagcc aacttcacca
1201 tccagaagga agatacgatt gtgtcacaga ctcaagattt caccaagata gcctcaaagt
1261 cggacagtg gacgtatatc tgcactgcag gtattgacaa agtggtaaac aaaagcaaca
1321 cagtccagat agtcgtatgt gaaatgctct cccagcccag gatttcttat gatgcccagt
1381 ttgaggtcat aaaaggacag accatcgag tccgttgcca atcgatcagt ggaactttgc
1441 ctatttctta ccaactttta aaaaacaagta aagttttgga gaatagtacc aagaactcaa
1501 atgacatctc ggtattcaaa gacaacccca ctgaagacgt cgaataccag tgtgttcgag
1561 ataattgcca ttcccacgccc aaaaatgttaa gtgaggttct gaggtggaag gtgatagccc
1621 cgggtgatga ggtccagatt tctatcctgt caagtaaggt ggtggagtct ggagaggaca

1681 ttgtgctgca atgtgctgtg aatgaaggat ctgggtcccat cacctataag ttttacagag
 1741 aaaaagaggg caaaccttc tatcaaatga cctcaaatgc caccagggca ttttggaaca
 1801 agcagaaggc taacaaggaa caggagggag agtattactg cacagccttc aacagagcca
 1861 accagcctc cagtgtcccc agaagcaaaa tactgacagt cagagtcatt cttgccccat
 1921 ggaagaaagg acttatttga gtggttatca tgggagtgat cattgctctc ttgatcattg
 1981 cggccaaatg ttattttctg aggaaagcca aggccaagca gatgccagtg gaaatgtcca
 2041 ggccagcagt accacttctg aactccaaca acgagaaaat gtcagatccc aatatggaag
 2101 ctaacagtc ttaacggtcac aatgacgatg tcggaaacca tgcaatgaaa ccaataaatg
 2161 ataataaaga gcctctgaac tcagacgtgc agtacacgga agttcaagtg tcctcagctg
 2221 agtctcaca agatctagga aagaaggaca cagagacagt gtacagtga gtccggaaag
 2281 ctgtccctga tgccgtggaa agcagatact ctagaacgga aggtccctt gatggaactt
 2341 agacagcaag gccagatgca catccctgga aggacatcca tgttccgaga agaacagatg
 2401 atccctgtat ttcaagacct ctgtcc

(2) INFORMATION FOR SEQ ID NO:2757:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2557 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2757

1 gaattccggg agaagtgacc agagcaattt ctgcttttca cagggcgggg ttctcaacgg
 61 tgacttgttg gcagtgcctt ctgctgagcg agtcattggc cgaaggcaga actaactgtg
 121 cctgcagctc tcactctcag gatgcagccg aggtggggcc aagggggccac gatgtggctt
 181 ggagtcctgc tgacccttct gctctgttca agccttgagg gtcaagaaaa ctctttcaca
 241 atcaacagtg ttgacatgaa gagcctgccc gactggacgg tgcaaaatgg gaagaacctg
 301 accctgcagt gcttcgcgga tgtcagcacc acctctcacc tcaagcctca gcaccagatg
 361 ctgtttctata aggatgacgt gctgttttac aacatctcct ccatgaagag cacagagagt
 421 tattttattc ctgaagtcgg gatctatgac tcagggacat ataatgttac tgtgattgtg
 481 aacaacaaag agaaaaccac tgcagagtac cagctgttgg tggaaggagt gcccagtcct
 541 aggggtgacac tggacaagaa agaggccatc caaggtggga tcgtgagggt caactgttct
 601 gtcccagagg aaaagggccc aatacacttc acaattgaaa aacttgaact aatgaaaaa
 661 atggtcaagc tgaagagaga gaagaattct cgagaccaga attttgtgat actggaattc
 721 cccgttgagg aacaggaccg cgttttatcc tccgatgtc aagctaggat catttctggg
 781 atccatattg agacctcaga atctaccaag agtgaaactg tcaccgtgac ggaatccttc
 841 tctacacca agttccacat cagccccacc ggaatgatca tggaaggagc tcagctccac
 901 attaagtgca ccattcaagt gactcacctg gcccaggagt tccagaaat cataattcag
 961 aaggacaagg cgattgtggc ccacaacaga catggcaaca aggtctgtga ctcagtcag
 1021 gccattggtg agcacagtgg caactacacg tgcaaaagtg agtccagccg catatccaag
 1081 gtcagcagca tcgtggtcaa cataacagaa ctattttcca agcccgaact ggaatcttcc
 1141 ttcacacatc tggaccaagg tgaaagactg aacctgtcct gctccatccc aggagacct
 1201 ccagccaact tcaccatcca gaaggaagat acgattgtgt cacagactca agatttcacc
 1261 aagatagcct caaagtcgga cagtgggacg tatactctgca ctgcaggtat tgacaaagtg
 1321 gtcaagaaaa gcaacacagt ccagatagtc gtatgtgaaa tgctctccca gcccaggatt
 1381 tcttatgatg cccagtttga ggtcataaaa ggacagacca tcgaagtccg ttgcgaatcg
 1441 atcagtggaa ctttgcttat ttcttacc aa ttttaaaaa caagtaaagt tttggagaat
 1501 agtaccaga actcaaatga tcctgcggta ttcaagaca accccactga agacgtcgaa
 1561 taccagtgtg ttgcagataa ttgccattcc catgccaata tgtaaagtga ggttctgagg
 1621 gtgaagggtg tagccccgtg ggatgaggtc cagattttcta tcctgtcaag taagtggtg
 1681 gagtctggag aggacattgt gctgcaatgt gctgtgaatg aaggatctgg tcccatcacc
 1741 tataagtttt acagagaaaa agagggcaaa cccttctatc aaatgacctc aaatgccacc
 1801 caggcatttt ggaccaagca gaaggttagc aaggaaacag agggagagta ttactgcaca
 1861 gccttcaaca gagccaacca cgctccagt gtcccagaa gcaaaatact gacagtcaga
 1921 gtcatctctg ccccatggaa gaaaggactt attgcagtgg ttatcatcgg agtgatcatt
 1981 gctctcttga tcattgctgc caaatgttat tttctgagga aagccaaggc caagcagatg
 2041 ccagtggaaa tgtccaggcc agcagtacca cttctgaact ccaacaacga gaaaaatgca
 2101 gatcccaata tggaaagctaa cagtcatcac ggtcacaatg acgatgtcag aaaccatgca
 2161 atgaagccaa taaatgataa taaagagcct ctgaactcag acgtgcagta cacggaagtt
 2221 caagtgtcct cagctgagtc tcacaaagat ctaggaaaga aggcacagca gacagtgtac
 2281 agtgaagtcc ggaaagctgt ccctgatgcc gtggaaagca gatactctag aacggaaggc
 2341 tcccttgatg gaacttagac agcaaggcca gatgcacatc cctggaagga catccatgtt
 2401 ccgagaagaa cagataatcc ctgtatttca agacctctgt gcacttattt atgaacctgc

2461 cctgctccca cagaacacag caattcctca ggctaagctg cgggttctta aatccatcct
2521 gctaagttaa tgttggttag aaagagatac agagggg

(2) INFORMATION FOR SEQ ID NO:2758:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1560 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2758

1 cccgggttca agcgattctc ctgcctcagc ctcttgggta gctgggatta taggcgtgtg
61 ccaccgtgcc tggctaattt ttgtattttt attggagaca gggtttcacc atgttggcca
121 ggctggtctg aaactcctga cctcaggcaa tcctcctacc tcagcctctc aaagtgtctg
181 gattaccggc atgagccacg actcccggcc ccaaagggtca atcttaaagc tacaaggat
241 cttttaaaag gagtaggaat aacgtatttt gaggtctaaa ggagtaggaa tagtgtattt
301 ttagatttga agccatcttc taaagggtac gatatttggg taacatgtca ctccctatcg
361 ccatggaaga agttaattct attctttttt tttttttttt gagatggagt ctactctgt
421 tgcccaggct ggagtacaat ggtgtgatct cagctcactg caacctctgc ctctgggtt
481 caagcaattc tcctgectca gcctcctgag tagcagggat tacaggggtt ctccaccatg
541 cctgtctaat ttttgtattt ttttttttag tagagggtga gtttcacat gttggtcagg
601 ctggtctcaa acccctaacc tcatgatccg cccgccttgg cctcccaaag tgctgggatt
661 acaggcgtga gccaccatgc ccagccgtta attctattct tactgcttac tcccttattt
721 tgtagtttct tcttctatct tacatctttt gcttttgcta ttgcttaagc tagcctacgc
781 caagggtgct ctttgcccc tacttctct gctattctcg cctcagttcc gctgcattcc
841 aagctcagcc tgcccagca gcaggtctct ttgacaaaacc tgcaattttg gggaagagtc
901 agccccaaga aaggcagggg gccagactt atgctgtgtg gcaaaagccc tctttgatgg
961 gggaagggga ggactggaaa agcagagaga tcttcttgga tgccttggga gagcagccct
1021 ttgggtgggt ggtggaggct ggagcaggg aggaatcccc tcacagtgcc atgagaaggg
1081 cccccaacc caggcgagac agaggaggg tcaagaacgc caaggcaaat gtcacttgtg
1141 cctgtttttt tccctaaaga aactaaacaa agcggccgcg ttcgggtggc cctcagggaag
1201 gccggtcatt tcctgaggag atatcaggcc agcccaggcc ccattgttcc cgtttccag
1261 ccatggctgc cattacctga ccagcgccac agccggtctc tctgcaggcg ccgggagaag
1321 tgaccagagc aatttctgct tttcacaggg cgggtttctc aacggtgact tgtgggcagt
1381 gccttctgct gagcgagtca tggcccgaag gcagaactaa ctgtgcctgc agtcttact
1441 ctcaggatgc agccgaggtg ggcccaaggg gccacgatgt ggcttgagat cctgtgacc
1501 cttctgctct gtgagtgtt actctgtttc cacatcactt taactccatg agcatcgaag

(2) INFORMATION FOR SEQ ID NO:2759:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2537 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2759

1 gaattccggg agaagtgacc agagcaattt ctgcttttca caggcggggt ttctcaacgg
61 tgacttgtgg gcagtgcctt ctgctgagcg agtcatggcc cgaaggcaga actaactgtg
121 cctgcagtct tcaactctag gatgcagccg aggtgggccc aaggggccac gatgtggctt
181 ggagtcctgc tgacccttct gctctgttca agccttgagg gtcaagaaaa ctctttcaca
241 atcaacagtg ttgacatgaa gagcctgccg gactggacgg tgcaaaatgg gaagaacctg
301 accctgcagt gcttcgggga tgtcagcacc acctctcagc tcaagctca gcaccagatg
361 ctgttctata aggatgacgt gctgttttac aacatctcct ccatgaagag cacagagagt
421 tattttattc ctgaagtccg gatctatgac tcagggacat ataaatgtac tgtgattgtg
481 aacaacaaag agaaaaccac tgcagagtac cagctgttgg tggaggaggt gccagtccc
541 aggtgacac tggacaagaa agaggccatc caagggtgga tcgtgagggt caactgttct
601 gtccagagg aaaaggcccc aatacacttc acaattgaaa aacttgaact aaatgaaaaa
661 atggtcaagc tgaaaagaga gaagaattct cgagaccaga attttgtgat actggaattc
721 cccgttgagg aacaggactg cgttttatcc ttccgatgtc aagctaggat catttctggg
781 atccatatgc agacctcaga atctaccaag agtgaactgg tcaccgtgac ggaatccttc
841 tctacacca agttccacat cagccccacc ggaatgatca tggaggagc tcagctccac
901 attaatgta ccattcaagt gactcacctg gcccaggagt ttccagaaat cataattcag
961 aaggacaagg cgattgtgac ccacaacaga catggcaaca agctgtgtga ctcagtcag
1021 gccatgggtg agcacagtgg caactacagc tgcaaatgg agtccagccg catatccaag
1081 gtcagcagca tcgtggtcaa cataacagaa ctattttcca agccgaact ggaatccttc

1141 ttcacacatc tggaccaagg tgaagactg aacctgtcct gctccatccc aggagcacct
 1201 ccagccaact tcaccatcca gaaggaagat acgatttgtt cacagactca agatttcacc
 1261 aagatagcct caaagtcgga cagtgggacg tatatctgca ctgcagggtat tgacaaagt
 1321 gtcaagaaaa gcaacacagt ccagatagtc gtatgtgaaa tgctctccca gccaggatt
 1381 tcttatgatg cccagtttga ggtcataaaa ggacagacca tcaagtcctg ttgcgaatcg
 1441 atcagtggaa ctttgcctat ttcttaccac cttttaaaaa caagtaagt tttggagaat
 1501 agtaccaaga actcaaatga tcttgcggta ttcaaagaca accccactga agacgtcgaa
 1561 taccagtgtg ttgcagataa ttgccattcc catgccaaaa tgttaagtga ggttctgagg
 1621 gtgaagggtg tagccccgtt ggatgaggtc cagatttcta tctgtcaag taagggtggtg
 1681 gagtctggag aggacattgt gctgcaatgt gctgtgaatg aaggatctgg tcccatcacc
 1741 tataagtttt acagagaaaa agagggcaaa cccttctatc aaatgacctc aaatgccacc
 1801 caggcatttt ggaccaagca gaaggctagc aaggaacagg agggagagta ttactgcaca
 1861 gccttcaaca gagccaacca cgcctccagt gtcccagaa gcaaaatact gacagtcaga
 1921 gtcattcttg ccccatggaa gaaaggactt attgcagtgg ttatcatcgg agtgatcatt
 1981 gctctcttga tcattgctgc caaatgttat tttctgagga aagccaaggc caagcagatg
 2041 ccagtggaaa tgtccaggcc agcagtacca cttctgaact ccaacaacga gaaaatgtca
 2101 gatcccaata tggaaagctaa cagtcattac ggtcacaatg acgatgtcag aaaccatgca
 2161 atgaaaccaa taaatgataa taaagagcct ctgaactcag acgtgcagta cacggaagtt
 2221 caagtgtcct cagctgagtc tcacaaagat ctaggaaaga aggacacaga gacagtgtac
 2281 agtgaagtcc ggaaagctgt ccctgatgcc gtggaaagca gatactctag aacggaaggc
 2341 tcccttgatg gaacttagac agcaaggcca gatgcacatc cctggaagga catccatggt
 2401 ccgagaagaa cagataatcc ctgtatttca agacctctgt gcacttattt atgaacctgc
 2461 cctgctccca cagaacacag caattcctca ggctaagctg ccggttctta aatccatcct
 2521 gctaagttaa tgttgggtag aaagagatac agagggg

(2) INFORMATION FOR SEQ ID NO:2760:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1438 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2760

1 tcttttgggt ttgctattgc ttaagctagc ctacgccaaag ggtgctcttt gccccctact
 61 tctctctgcta ttctcgctc agttccgctg cattccaagc tcagcctgcc ccagcagcag
 121 gtctctttga caaacctgca attttgggga aaagtcagcc caagaaaggc agggggccca
 181 gacttatgct gtgtggcaaa agccctcttt gatggggcaa ggtaggact ggaaaagcag
 241 agagatcttt ctggatgtcc tgggagagca gccctttggg tgggtgggtg aggctggagg
 301 caggaggagaa tccctcaca gtgagaaggg ccccaaaacc caggcgagac agagggaggg
 361 tcaagaacgc caaggcaaat gtcacttgtg ccttgttttt tcctaaaga aactaaacaa
 421 agcgggccgc ttccgtggcc cctcaggaaag gccggtcatt tccctgaggag atatcaggcc
 481 agcccgagcc ccattgttcc cggtttccag ccattggctg cattacctga ccagcgccac
 541 agccggtctc tctgcaggcg ccgggagaag tgaccagagc aatttctgct ttccacaggg
 601 cgggtttctc aacggtgact tggggcagc gccttctgct gacgcagtc tggcccgagg
 661 gcagaactaa ctgtgcctgc agtcttctc ctcaggatgc agccgaggtg ggcccaaggg
 721 gccacgatgt ggcttggagt cctgctgacc cttctgctc gtgagtgttt actctgtttc
 781 cacatcactt taactccatg agcatcgaag cttctggaat caacatgttt cttatgtttc
 841 ttgcaggttc aagccttgag ggtcaagaaa actgtaagtc tgatgtttcc actgtaacag
 901 atgtttctac ctggcttctc ctttctctt ctgtgatgcc taaaacgcac attaaattgc
 961 tgggggttga tacttctaac aattaaggaa aagaatccaa ttgagaacta aagtttatcc
 1021 catgtgggca tttttagaaa ggcttagatc taagccaagt tctggctcag gtgttttaga
 1081 agtagcacac gtttccttgg ctggtctgaa agtagtgggt tatcttgatg aattgtttag
 1141 tcagttacag atcaaatcc atgttctttt ctctgttctc acgactactc ttgactagtc
 1201 taaaaatata ttagggtgtt gaaaagtaat tgtggttttt gccattactt tttaaaagat
 1261 ggcaaaaaac acaattataa gtagcacaca ttttcttttt tttttccttt ttttttgag
 1321 acagagtcct tgttaccag gctggagtgc agtgggtcaa tccggctctc tgcaaacctc
 1381 gcctccaggg ttcaagggat tctctgtct cagcctcctg ggtcgtgga attagagg

(2) INFORMATION FOR SEQ ID NO:2761:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 350 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2761

1 ttggcaggct ggtctcaaac tcctgacctc aggtgatccg ctggcctcca cctcccaaag
 61 tgctgggatt acaggtgtga gccaccacgc ccggcctcac attttctaga tttcagtga
 121 ttgctgtttt ttgggatggg gaagtgtatt ttttatttta atgagcaatt ccataattag
 181 tttttgttg ttttaccata atggcttatt tgaatattgt aaggatccc caactgtttt
 241 tatttgcaaa tgagatataa ttgatttgtt agacatatga agacagatcc tagtttaaat
 301 tgttgctact tttttactc ctaaataata aaaatcacac actcgagctc

(2) INFORMATION FOR SEQ ID NO:2762:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 350 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2762

1 ttggcaggct ggtctcaaac tcctgacctc aggtgatccg ctggcctcca cctcccaaag
 61 tgctgggatt acaggtgtga gccaccacgc ccggcctcac attttctaga tttcagtga
 121 ttgctgtttt ttgggatggg gaagtgtatt ttttatttta atgagcaatt ccataattag
 181 tttttgttg ttttaccata atggcttatt tgaatattgt aaggatccc caactgtttt
 241 tatttgcaaa tgagatataa ttgatttgtt agacatatga agacagatcc tagtttaaat
 301 tgttgctact tttttactc ctaaataata aaaatcacac actcgagctc

(2) INFORMATION FOR SEQ ID NO:2763:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 265 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2763

1 gctgtccac agcccaccct tcacacaaat agtcctgaaa ctttttgggt tcagtaagga
 61 aatctgtggg ccttctctcc agaaaaagca cacatttgca cacaattgga ggtagtgtat
 121 gagctccta acacccaccc atgcacctcc caggggctgt gtccccagg ttgtgaacag
 181 tcactctgtg taaatagtga gacctacagg cagtaattca gtttgctgt gcttgctgg
 241 tttatttaga aagatgataa tgttt

(2) INFORMATION FOR SEQ ID NO:2764:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 168 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2764

1 gagctctcca agggcagaca ctgccagcct cactgttctc tgaaccccca gtatgggaca
 61 gtgcttgcca cagaaaaacc cccttaaatg tttgctatga atgggtgctaa ggaagaaggc
 121 agagaatgtc aaccagaggc caggcactgg caatatatac acggcccc

(2) INFORMATION FOR SEQ ID NO:2765:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 243 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2765

1 ataccttggc tcaactgcaac ctctgcctcc caggttcaag cagttctcct gcctcagtc
 61 cccaagtagc tgggattaca ggcgccacc accacacccg gctaattttg tatttttagt
 121 agagatgagg ttccaccatg ttggccaggc tggctctgaa ctcctgacct caagtgatcc
 181 acccgctcgc gctcccaaaa gtgctgggat tacaggcata aaccaccgtg cccggctgg
 241 cca

(2) INFORMATION FOR SEQ ID NO:2766:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 272 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2766
 1 gagctcatcc agcaggcttc ttaaatacagg agcttgtaag ttgcatataa agacaaaaaa
 61 gggagttcca aagagtaaat ctgtgggaaa tgacttgaat ttaaaccgtc accttggttg
 121 atctcatgga ctggctcagac accatttttg ttgtcgttgt tgttggttaa ttaattgctc
 181 agaatatagc agcaggcgca aattgtagta ctcgttttaa aattgaagat taaattttaa
 241 attaccaaac aaaggcctaa ctttggttaa ag

(2) INFORMATION FOR SEQ ID NO:2767:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4308 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2767

1 gaattctacc gacagcctat ggttactgga tataagccaa ttctgttctg gggacttgcc
 61 agaaatgaca caattggcca gttgaccac agcctagttc ctacagaga ttggatagct
 121 gattgagcgt tgtggctggt ttgaggcttg accagagatt cctgccgttg gcagagggga
 181 atctgtagtc ttgtcttctt ggtagcaggt gaggtgaaa acgcaagtag caggctaaaa
 241 actggtttca agtcctcacc atctggtgaa acctcagagc ccacagata gaaaaagcca
 301 gctgggactg tgctaattcg gtaaggcctg ggtggagaag gagggcctgg gcacgacct
 361 ctgggttccg aatggaggtg gcagtcattt attaatgtat taatgtatat cgggcactgt
 421 acaggagacg ttctggctgt tctcctgtac atttctgca aagacctaat gagatatgat
 481 tactccatcc tacaggttaag gaaactgagc tcagagagtc tagctgccca gggtcacaca
 541 gtaaatgatg agccaggact tgaacacttg actgcttgaa tctgtactc cctccagggg
 601 ccaagatgtg gcagctcaca gaatgcctat atcttttttt ttttttgtct ttgagacag
 661 tctcactctg ttgccacaggc tggagtgcag tggtagatc tcacctcact gcaacccccg
 721 cctcccaggt tcaagtgtat cttgtgctc agcctctcaa gtactgggt tacaggcctg
 781 caccaccaaa cctggctaatt tttgtattt ttagtagaga ggggttttca ccatgttggc
 841 caggccagtc tctaactgct gacctcaggt gatccacca ccttggtctc ccaaagtgtc
 901 gggattatag gctgagcca ccatacctag ctctacatct ttatcactct gttcctttgc
 961 cttggtggga aaagtgcag cttagtacca actgcctcct gcttgagcca ctgtgcacag
 1021 ttactatcag cctggccctg taggcacgta gaacccctgg actcaactact gcataggatg
 1081 ggataagacc acatctgatg tggtagaagt caccgggatg atgttgtttc tgagataaca
 1141 ggtatgtctg ccttccttcg ggttgcatct agctttcaca atcaacagtg ttgacatgaa
 1201 ggcctgcccg gactggacgg tgcaaaatgg gaagaacctg accctgcagt gcttcgagg
 1261 tgtcagcacc acctctcagc tcaagcctca gcaccagatg ctgttctata aggatgacgt
 1321 gctgttttac aacatctcct ccatgaagag cacagagagt tattttatct ctgaagtccg
 1381 gatctatgac tcagggacat ataaatgtac tgtgattgtg aacaacaaa agaaaaaccac
 1441 tgacagtgac cagctgttgg tggaaagtga gtccctggaa ctgagcacag gcaagcagat
 1501 ggagcatagc acacagtggc gtgaataaca gctgtgaatg aatagtga ca ctggacttaa
 1561 ctctccaccc atcacctctc cattcatctg cctggcattt tccttacctg aatacgtaa
 1621 cactagacat attcccaaat aggcaggccc ttctctcctt ccttccttcc ttcttctct
 1681 ccttccttcc ttcttctctt ccttccttcc ttcttcttct tctttgatgg agtctcactc
 1741 tgtcaccagc tctggagtgc agtgggtgat ctgggtcac tgcaacctct gcctcccagg
 1801 ttcaagcgat tctcctgcct cagcctccca agtaattggg attacagggtg tgtgccacca
 1861 cactgggcta attttgtatt ttagtagag atggggtttc actgtgttgg tcaggctggg
 1921 ctggaactct gacctcaagt gateccactg cctcccaaaa tgcttcttca tctcgtctta
 1981 taaattacaa tttctttctt caagactcaa ctcaatgatg ttttgccaaa acaaaatggg
 2041 tctacccagc ggtgccagtc agtacagctc tgatgctctc tctacaggca atgggtattg
 2101 tgtgtataaa ggccacagcg gtgtgttaag acacctcgtt ctgcagtcac tctgcctggg
 2161 tttcaatctt ggttcaagtc cttaacatgc tctaaacttc aaaatcctca ccagtaaaag
 2221 gaagataaca acgataccca tttcaggcaa ttattgagag ggttaaaagt gtcagtgtgg
 2281 tagagtgtct agcaaaatct ccagcaccta gtgagttcct aataaataga aatgtattta
 2341 tttatttgag acagagtctt cctctgtcac ccaggctaaa gagcaatggc gcgaccttgg
 2401 ctcaactcaa cctctgtctc ctgggttcaa gcgattctcc tgtctcagcc tcccaagaaa
 2461 ctgggattac aggcacgcgc cactgtgcct ggctaatttt ttgtattttt agtaaggatg
 2521 ggggtttacc atgttgcca gctgtgtctc gaactcctaa cttcaagtga ttaccacc
 2581 ttggcctccc agagtgtcag gattacaggt gtgagccacc atgcccgttc cacaatat
 2641 ctatttcaact cagtattggc atccgttctt acacatctgt ctgctcttct ggatagttaa
 2701 attgtaaaga cagagatggg gtttgggttt attcttata ctgaacaaat gaatctggct
 2761 ctatagtagc attcagtc aa ttgtcatgga ataaattaaa gtcagtccta gcctgtggg
 2821 gcattcaata aagggttaaca acaatcacag tgacactgac aaatactggg ttaccttctc
 2881 cctctaagca tcatctgttg ggaatctgat tgtgtcctct tcccaatagg attataaacc

2941 attgaaaaaca ccaagtagat cttagaccata ttttattttt taaattttatt tattttattta
3001 tttattttatt ttttagacaga gtctcactct gttgcccagg ctggagggca gtggcacgat
3061 ctacagtcac tgaacacctct gccttcgggg ttcaagcaat tctcctgcct cagcctccaa
3121 gtacgtggga ttacaggtgc ctgccaccat gccgggtaat tttgatttaa tagagatggg
3181 gttcgccatg ttggccaggc tggctcctaaa ctctgacct caggtgatcc acctgcctca
3241 gcctcccaaa gtgttagat tacagatgtg agccacctcg cgtggcctta gtggtgattt
3301 tgggtgaccc atcacccgag cagtgtacac tgtacccagt gtgtagtcac tttatccctc
3361 gctccctccc actctttccc ctgagtcccc aaagtccact gtatcattct tatgcctttg
3421 tttcctcata gcttagctcc cattgagcat attttatatt ttttctttc ttttcttctc
3481 ttttttgaga cagggtctct gttgcccagg ctggagtgca gtggtgggat tactgtctac
3541 tgccgcctca acctcctagg ctcaagtgt tctccacact cggcctccca agtagctggg
3601 actaccagtg cacaccacta actaccctg gctaatttta atttttttt ttgtagagat
3661 agcatttcac cgtgttgccc aggtgtgtct ccaactcctg ggctcaagag atccaccac
3721 ctacgcctcc agattttata tttttcaaa tgcttagtac tgtgtgggc acatacctgt
3781 tcattttatta cctggttaggt cgactgggt gttcagagaa caaaaaagag cctctcatg
3841 ggatcaacta cagtcaacta gcggagggga gggcttgtgt ctctcaatca ggctgatact
3901 gcagactttt cttcttcaat caggctgata ctgacatgac tttctacttt ccccgtagga
3961 gtgcccagtc ccagggtgac actggacaag aaagaggcca tccaaggtgg gatcgtgagg
4021 gtcaactggt ctgtcccaga ggaaaaggcc ccaatacact tcacaattga aaaacttgaa
4081 ctaaatgaaa aatggtcaa gctgaaaaga gagaagaatt ctcgagacca gaattttgtg
4141 atactggaat tccccgttga ggaacaggac cgcgttttat ccttccgatg tcaagctagg
4201 atcatttctg ggatccatg gcagacctca gaatctacca agagtgaact ggtcacctgt
4261 acgggtcagc atctgtctcc ttcctcatcg tttttgttg tttctggt

(2) INFORMATION FOR SEQ ID NO:2768:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: []867 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2768

1 gttctagaga agaaaggttg aattttaaag ttagttagga acaatagaaa agtttgaaaa
61 gggaagcag caaaaagagc agaagaggct cctcttgcct aggtttgcac ctgagtccaa
121 ccagggtgtc ttcctctctt gcagaatcct tctctacacc caagttccac atcagcccca
181 ccggaatgat catggaagga gctcagctcc acattaagtg caccattcaa gtgactcacc
241 tggcccagga gtttccagaa atcataattc agaaggacaa ggcgattgtg gcccaaca
301 gacatggcaa caaggctgtg tactcagtc tggccatggt ggagcacagt ggcaactaca
361 cgtgcaaatg ggagtccagc cgcataatca aggtcagcag catcgtggtc aacataacag
421 gtagggtgct tgctgccgga ggggtgttgc atatggcggg ctcaagaggc caccatgctg
481 caatccagca tggccaaaag gagctgatca tttcctgccc ctgcttatct gaatgaatgt
541 gctcagatgg gcttttgggt ctggtgggag gaaaccactg cagagcgagt taacagtcta
601 ctgtgctgtg tgagggtaca ggctccggca ccaaagctta accctgccgc tcaactgttc
661 tgtgaccttg ggtgagttat tgaacgtgcc gcagcgtgt gagatggtga taatgacctt
721 ttaggactgc tataatgatt aatgagataa ctatactgta agcatgagct gagagatttg
781 tacagagtaa gactctgaaa cactggttaa tgttttcatt actctgttat atttctccat
841 cccctgtgac aagcactatg ctatagtc

(2) INFORMATION FOR SEQ ID NO:2769:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1872 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2769

1 gaattccggc ctgtgaatcc atctggttct tggacttttt ttggttggtg agctattgat
61 tattgccaca atttcagatc ccgttatttg tctattcaga gattcaactt ctctctggtt
121 tagtcttggg agagtgtgtg tgttgaggaa tttatccatt tctcctagat tttctagttt
181 atttgcttag aggtgtttgt agatattctc tgatggtagt ttgtatttgt gtgggatcgg
241 tgatgatatc cctttatca tttttattg cgtgtatttg attcttctct cttttttct
301 ttattaggct tgctagcggc ctatcaattt tgttgatcct ttcaaaaaac cagctcctgg
361 attcattaat tttttgaagg gttttttgtg tctctatttc cttcagttct gctctgattt
421 tagttatttc ttgcttctg ctagcttaag gagtttcatt cttgttgccc aggtcggagt
481 gcagtgagc aatctcggct cactgcaatc tctgtctcct gggttcaagg gattctcttg
541 cctcagcctc ccgagtatct gggattacag gcgcccacca ccatgctggc taattttata
601 ttttttagtag agatggggtt tcacatggt gccaggctg gtctcaactc ctgacctcag

2221 tgggtcacgc ctataatccc agcacttttg gagaccgaat ggggtggatc acttgagccc
2281 agaggtttgg gactagcttg gccaacatgg caaaaccccg tctctactaa aaatacaaaa
2341 attagcccag cgtggtggtg ggtgtcctgt agccccagct actcaggtgg ctgaggtggt
2401 agaatacactt gaataccagga ggagaggtt gcagtgcagc aagatcgtgc cactgcactc
2461 cagcctgggt gacagagtga gactctatct ccacaaaaaa aaaaaaaata
2521 aaggactgtg gccaaatcag atggctgga acaaaggctg gagtttggga atggagaatc
2581 accggatatg agctgaaaaa gtggctgagc ctaagcgtga caggtgtcag gtgccagtct
2641 caggagtagg caattgtcct gcatgcagtg aaaagccaga agatggaagg aaggacagga
2701 tgcaaatgag ttctcggaac gatccacctg gtggctgggt cagggagcag gcatgggtgac
2761 ttcagacctc atgggtacgtt agaggctaag gtgaagccca tgtgaagctg ttggtttaaa
2821 ctgggtcgat atcagtggca cacatttact gaccatgtgt ccagccctgt gtgaagtact
2881 gtagtaaat gctccaatgg aaactcaca taaccacaga aggccagtaa cagcattgtc
2941 gttattttat catgacgcaa ctgaggctta gggcagacag ctggtgggtg gtgggactgg
3001 gatttgagcc cactggtgtc ccaggcccgg agcttggctt cttccattgt cttaccacag
3061 cctgcactca caggagagt gactcataagt tacaatacca tctgctgacc atctgctctc
3121 acactagaag gaaagtctac ttggggagac aatttaggat ccgaattttg gtagttagg
3181 atggagctag gaaaagcggg tacaggaggt agccaagttc tgcttggacc tgcaggaggt
3241 gaggctggcc gggctccagg tggaaatccc caggtgaaaa gggagacttg gagtccagga
3301 aagtaacctg gactggagcc ataggtttag gtgtcagtg ctcagagaca gaagctcagc
3361 gtgtaggtga aatcacccag gaggagaatg gggatgaaa actgaggatt gaattttgca
3421 aaatgttcat acttccgggg aaaacaaaga ataaccagtg aataagaaag ggggtgccagg
3481 taagaaggga agagaatcag agtcatgagg aacccagaa cccagaaaa agctgagttc
3541 cacgtaagac ctgggcaaca gtgaagtat gagagcccaa gattgggagc gtggaggaag
3601 cagttccacc actgaattta atcagcccg gactcaggga cgttgggttg ggaatcaagt
3661 gaccttccca gtttcttcaa aacttgagag agagtgcagt gtcacaagat tgtgactaca
3721 aaagagtga gtcagatttc aggggtaaca agaaagtgtg aaataaggga gtcaaaagcat
3781 aaaggaaaaa ggagaaaaaa tggccgatag ctagagaaag cgtgggtcaa gattgtctgt
3841 ggctggcat ggtggcttat gctgtaatc ccagcatttt ggaaggccga ggtgggcaaa
3901 tcacctgagg tcaggaaatc aagaccagcc tggccaacag gcaaaaacc cgtctctaaa
3961 acaacaacaa caacaaaaaa atccaaaaag ttagtgggc ctggtgggcg cacctgtcat
4021 tccagctact cgggaggctg aggcaggaga tttgctttaa cccaggagc acacgttgcg
4081 gtaagctgag attataccac tgcactccag cctgggtgat aagagcggga ctctgtctca
4141 gagggaaaaa aaaaaagtgg agcagtggt gtctcatgtt cctctctctc tgcccttctt
4201 tgcctagtg gaatcctttt cctgcttttc agccccgtg gatgaggtcc agatttctat
4261 cctgtcaagt aaggtggtgg agtctggaga ggacattgtg ctgcaatgtg ctgtgaatga
4321 aggatctggt cccatcacct ataagtttta cagagaaaaa gagggcaaac cctctatca
4381 aatgacctca aatgccaccc aggcattttg gaccaagcag aaggctaaca aggaacagga
4441 gggagagtat tactgcacag ccttcaacag agccaaccac gcctccagt tccccagaag
4501 caaaatactg acagtcagag gtgagtcagg gtctccatag caagctgtgc tgtgggcccc
4561 caagggcaag accagaaaaa accccccttg taagaggag tttgggggga gtcagctta
4621 tgtgactgaa ggctaggaga gtaatgtcct ccaggctctt ggttgcaagt gacagaaacc
4681 cgtcaaaatt aagtaaaaaa gagaaatcga ttattataag gaattgggag aatgtcacat
4741 cgttccaatt acaaattgtt ggcagactca ccattgagtc atcttgggtc aaacatccaa
4801 ccacagacca cctgtagcca aggggatttg gtcacgcaga acagacatga ttggggaacc
4861 acttatgtgg gtgtgggggc ggtttcctgg agaagaagag gctgaaaac acatgcaaaa
4921 aaggagtcta ctccacttga gccctggagt tggagaccag cctgggcaac atggtgaaac
4981 cctgtctcta caaaaagtac aaaaataggt tgggcgcagt ggctcatacc tgaatccca
5041 gctactcggg aggctgagac atgagaatca cttgaaccga ggaggtagag gttgcagtga
5101 gcagagcttg ctccactgca ctccagcctg ggcaacagag caagactctg cctcaaaaat
5161 caaaccaaca aaaaatagct gtgtgtggtg gtgtgtcctt gtagtcccag ctactcggga
5221 ggttagagtg gaaggattgc tcaagcccag gaagttagg ctgcagttag ctgtcatcag
5281 cctctagcct ggtgacaga gtgcaccct gtcaaaaaa aaagaaaaa aaaagagtct
5341 acccagcaaa gctggtttgt tccctccttg aggaccacag ctgacctcta tttgtagcag
5401 aaacaatcat ttctgcacca gctctgagtg cagaaccctc cagaggtaga tggatgctaa
5461 ggcaagctgc cagttacaag agctgtgaga atcagactga cttttgttgc ttaaggcctg
5521 atattatttc ttcttgccag aggaagagcc tatatacaaa aaaaattttt tgtttgttt
5581 tgttttcagt cattcttgcc ccatggaaga aaggacttat tgcagtgtt atcatcggag
5641 tgatcattgc tctcttgatc attgcggcca aatgttattt tctgagaaa gccagggtg
5701 agcatagttc ttctcttcca tactgactgg tcgtccttgc caggaaacca gccagggatg
5761 cgtggtgctt ttctgacccc tggattcagc taggcaaaaa tgaagctat tattttctc
5821 attgggcaaa ccagaaaaa taaaatttgg gggaaattac atctttgtgt ggttagaaga
5881 agccatttct gtagatttgt ccacacctag tctgtaatg cgtgtagagt ggggtgcaag
5941 cgtcttggag acacacaaac atgcgcataa caccacatg ttgcacacac acattg

(2) INFORMATION FOR SEQ ID NO:2771:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 818 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2771

```

1 accctcttct tttctgtctt ttgaaaaaga gtgaatatat ttgccttctt tttctctctt
61 tttctgggta ttcaatcttc tgggaagtcc aaacgtagct gaaaagagtg ttccttcaca
121 gcttactagg agtaaaacaa aaagaaaaga aaagtgtttt ctatctatta ggtagtgca
181 aaagccattg gcgttttggc cattatagtg gtatggatgt gggtagctga tactgacttt
241 ggtttttcgt tttctgtttt taaagccaag cagatgccag tggaaatgtc caggtgagtg
301 tatttgtaag aagggggcgg ctgctctgtg agcacgggtg acatgtctgg agggagattc
361 tggtcattag gaagttttca gtggctcttg gcaaacttag aaaaatatag gccttctctg
421 ggtgtgagtt gtgtgtgtga gttgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtatctc
481 cgtggaagaa tgccaattgt ctttcatgg gaaggaatgg cttttattct gagatcatgt
541 ccttctctca tgattatttg tgaaatctcc ctttctttat gaaattataa tggtagtaga
601 taatttttta aaatttgaca aaatagagtt ggcctttaa aaatggtttt actaccttta
661 ctgttgttga aatcccaaat caaaagtata gaaatgattg ctctgttcca gagagaaaca
721 gtacgctggg ataagaattt cagggggcct ggtagtagcc tgtgaaggac tccggtattc
781 atgtgtgctt tggctctgat ttatttaata ggaaagtt

```

(2) INFORMATION FOR SEQ ID NO:2772:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 946 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2772

```

1 aaaaaaaaaa aaagttttt tacataatcc ttggagctgc caaaaaatat ttgttttcca
61 aatgagagag taaagtttt cttaccttgg aaaactcttc ctggttttct catgatcttc
121 cctgttttac tttggtggtt tggggtaga acaataacaa caacaaatat atctatatat
181 tgttttctgt ttttatatt cattttaaag gccagcagta ccacttctga actccaacaa
241 cgagaaaatg tcagatccca atatggaagc taacagtcac tacggtaaaag tcatgttctc
301 ctgccattta taattcccc caacttgcta catacttctc taccctctc agaagcagaa
361 tatgtaagtg gtgggattac agttggaaga gaaaccttgg cttcaacag gtacttcatc
421 tcatcagcca ctgggccatg taatatacgg aaacgtaaaa ggaaaggtaa catattttat
481 tctaactttg ccacctttca aactccccgt agaagaaaaga tggagaataa tcataatgcc
541 ttcaaagact ttgaacattg ctccagcgta atattataat tctccatttt caagacagag
601 acagatattg aatgaaacat tggtaaacat cttctcagat ggaattatta caagcacaag
661 acagtttttac ttcaaatttg gcacaaaagg aaagcaattt caatattctc tcagtaaaag
721 cataaataaa gtgttccaac taagaaaata tctattcata aggtcatca gtacttcag
781 ggtcagctca gctgaatgag taggcagtc taggagttct taatcccag ttagtaagaa
841 aattgctcaa gcatttcagc aggatgctac ttacttccca gaggggggta ttattacatc
901 acaaaaagtc ctgtcccaga ccaatttgg ggacactctt cctctt

```

(2) INFORMATION FOR SEQ ID NO:2773:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 645 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2773

```

1 atagccacga ctcaaataa ttgatcttag aatctaaaag acttaggtct gggcgcggtg
61 gctcacgcct gtaatctcaa cactttggga ggcgaggtta ggtggatcac ttgaggtcag
121 cagttcaaaa accacctggc caacatggtg taacctgtt tctactaaaa atacaaaaaa
181 ttagctgggc atggtgtag atgtttataa tcccagctac tcaggcaggc tgaggcagga
241 gaataccctt gaacctggga ggtggaggtt gcatgacctg a
1 tggacctcaa catgcacacc agtcagagca acaagagcga aactccatct caaaaaagaa
61 agaagaaaag aaactatatt caggccaggc atggtagttc atgcctataa cccagctct
121 ttgggaggtc gaggtgggag gatcattgag cccaggagtt ggagaccagc ctgtgcaaca
181 aagcgagaca tggagaatgt ggaacgaggg acccaggacc cagagacagt gctggtgtc
241 acatgactga ataatcagg cttgactttg ttaggggtac tgattttta aaagggtttt
301 agaaaactag aatttccctt gtcactcacc ctaattgtta ttttcaact aggtcacaat
361 gacgatgtca gaaacctgc aatgaaacca ataatgata ataaaggtaa ttatctaatt
421 acatgttttt attagaacca acttttacct taaaaaaaag actcatagga aaagaaaact
481 aaaaactgaa ggactgtgga taatttccca cctctcttaa tgacctgtga ccagccgat
541 gtgtcaatga aggtagctag ctgctttcac cagagatgct atctagtgtc ctcaagtggga

```

601 agtacctaaa tcaaagtagg gaagaactgg gttatactca aaaaa

(2) INFORMATION FOR SEQ ID NO:2774:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 390 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2774

```
1 acaacaactc tgtggtttct ttaggcagag cctctgaact cagacgtgca gtacacggaa
61 gttcaagtgt cctcagctga gtctcacaaa ggtaagtgcc actcgagtga gtccccaggc
121 attcgctttg gcttgggttt aaaccccggt ggtggcgggg gtgctgtgtt cagtgagaag
181 agtctgtgca ccctcagtcg ctccaaagga agtgattagc agacctaccg gcctgctaag
241 actggaagga gcaaggcccc tggcctggcc tgtctctgag ctgtaaaatt tcaataattt
301 aaaagaaaaa aagaaaaggc caggcactgt ggctcacacc tgtaatccta gcactttggg
361 aggccaaggc ggtggatca cctgagatca
```

(2) INFORMATION FOR SEQ ID NO:2775:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 250 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2775

```
1 tatatattat atattaatat ataaatataa atacatatat aatatataat atatgttttc
61 tttgtgtata atatatattt tataatatatt tatattttat ttttatatat
121 tttatatata atatttttat atttatatta tttatatatt ttttatttta tatatatata
181 tatatatttt tttttctttg ttgagacgga gtctactctc tgcccaggct ggggtgcagt
241 tgcgagatct
```

(2) INFORMATION FOR SEQ ID NO:2776:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 226 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2776

```
1 tgcaaacctc tgcctccggg ttaaagcagc attctcctcc ctcagcctcc cgagtagctg
61 ggattacagg catgtcaccg ccacagccgg gtaatttatt tatttttttt ttgtattttt
121 aagtagagat gggatttcac catgttggcc agcgtgaact cgaacttctg acttcaaaag
181 atccaccccc ctcagcctcc caaagtgcgt ggattacagg tgtgag
```

(2) INFORMATION FOR SEQ ID NO:2777:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1147 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2777

```
1 gaattcaatt tgagttttcc agaccgctcc tcctccttgg cagctaagga gcagtgtggg
61 aagtcaggcc tgagcctcag gtgttccctc tctgccttcc tgtgggtgga gagccaggta
121 ttaccaggtg cgaagagggt ctttgtgggt acaaggctca gtggtgagta catttgacct
181 ggtcttgacc aagccagttc cctgctctca agacttccct ctcctatgga ggagggttg
241 ggaaccacat ccagctctga ccctagtggc aggcgaccaa gtggtcactt ggggtggagg
301 aggggcagga aggaactcag taaatcctgg tttgctgcat gtttctctg agactaattg
361 ctgggaaaaa cccatgacgt tggaaagccat ctccttctct gttatcacag agaaaaacag
421 aagccaaaat aaagcccat ccggaacat ccctgacagc agagacaaag agcctgccag
481 cctggtttac tcattagcaa gcagctgtct cctggagtgg gtggggagga gaggtagtga
541 tgagctgcaa ctctgcctgc ccacccatca cttactggg cagatttggg ggcagctgca
601 actctagaag ctccaccaag aagcagaacc ccccaggccc aaacaccaag ccctctccct
661 ccattttatt ctcacctgcc ccagcccaca ctgtgggcct ggggtggagg gtgagctggc
721 cgtgaccacc ccacctgcg cctggtatat ggtgtttgat agcatttgtt gcagtgtctg
781 cgtgttttgt gcacctgtct gcctcacagc ctggagctcc tgaaagctgg ggaccaggcc
```

841 cgatcacctt tctcttcca cagtgcgggg ttcacactag gtgtctagga ttctgctgag
 901 tgagtgattt ggccaggcct gacatcaagc agaggggtgc ttggggatgt ggaggatccc
 961 ccaatagggt tggggatccc tacagcttcc cttgagggcc ccacatctgg tgccacagaa
 1021 agagagtgag ggggtgtgtg gcactctctg tgtcccagca gtgtggtgcc ctggtagctc
 1081 agccactcta ctgagttcca aatcctgttt ggggtgccctg ggggaagtca gtgtaagggc
 1141 ctagtca

(2) INFORMATION FOR SEQ ID NO:2778:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2136 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2778

1 aaggagggaa atccacttga ccatggcaca ggaaccccc ttaccaatc tgggccttcc
 61 ctttccccca tctgtaaaag gagaacagtg cccacacgac atcagcctct tttctacag
 121 tgagccttcc tggccctttg tgcagtagac aggagctggg aagtggccag gttccatcct
 181 gtttctctag ggttgggtgg tatgtatgtg tgtgcacacc ctgtgtgcat gagtgtgtgc
 241 acaccagat tgcattgttg tacatacagt gtgtatacaa tgtgtgtaga cacatcctat
 301 acactgtatg agggatatac tagcatgtat acacattgtg tgcattgagt tgcgtgtgta
 361 tatgctgtgt gtgtattttt gtatacacat cctgtgcccc taccacagtg taaggtaaac
 421 agatggcagg aagggcgccc ttgagtctcc tccaggtata cggcacaccc tgggtcagtc
 481 atcatgctgc catattgaga gggctctagcc cagaggatct cagccctgtc tgcatttag
 541 ggcccttgag gagatcctaa aaaaccagca ccagggaccc cccagacca atccaaccag
 601 aagctgcagt gagggccagg agccagcagt gaaaacagcc agcccagctg tctatctctg
 661 taagagttct cagtcccagc tattcttagg gtcactgaca acccccaggc tctaaccag
 721 acctcaggat cttgtttctg atccccgggt ctgggctctc aggtgattgg gaggccatag
 781 cccaaccctg cgttgaggga cctggcagaa tgtctggaca agggtcacgg tggcagggga
 841 agaggagtg gggcagcaag ctggaggctg caggcccttg ctggggggct ctccatccgt
 901 gggccctca ggtccagggg ttctctgtgt gcatgtggcc ctgctccaca atggcctgtc
 961 gacctctat tcccagactg ggagtgcgc tctgttagacc aagacctct tcttcttct
 1021 cttttttttt tttggagggt ggtgtgtcac tgtgtgtccc aggtgtgagt gcagtggcgc
 1081 aatcttggct cactgcaacc tctgcactct gggttcaagc gatttctctc ccttagctct
 1141 cgagtaactg ggtacacagg gacgcaccac catgcccgtt taattttttg gaatttttag
 1201 tagagacggg gtttcggcat gttggccaga atggtctcaa cctcctgacc tcaagtgtatc
 1261 ttgccccctc aacctcccaa agtgcaggga ttacaggat gagccacctt gccagccag
 1321 gatcttctaa catcagaaat gacaaggctc ctgggtgctt ctggacctgg ttctggtggg
 1381 gtgcagtggg ggggtacagc cttgcctgca gagcctcaga ccttttctta tgactgcagt
 1441 ggactgacct cgttcccaga ggcagctact aacttatgcc tggctccttt tccagatcta
 1501 ggaaagaagg acacagagac agtgtacagt gaagtccgga aagctgtccc tgggtgagtga
 1561 gggctctccag tgccccagcc tgggggatgc cccctataat cactgatggg ggcttgggag
 1621 tgggcagaga aaagaagaag caaagaaggg caaaaaaggg gtggcacctc ttacaccagc
 1681 cgtgtgggct tctctctccc caccacctt aaaaagtcac ctggggtcac atttactatt
 1741 catgtagtca acgagcgctt cttgaatgct tactgacccc agccgggtgac ccttacctgc
 1801 tccccacaca ggccctgtgt gctgggggtc ccaaggctt tggacgtcga gtgttttgc
 1861 ttggagaccc ccagtagctt cagcctttct tcttgttttc ttttttctc ttttttttg
 1921 tgggatacga gtctcgctct gtcactcagg ctggagtga gtgggtgcaat ctgcactcac
 1981 tgcaacctcc acttcccgga tttaagtgat tctcctgcct cagccctcca agtagatggg
 2041 attacaggcg cctgtcacca cactcagcta atttttttt tttatatttg ggagacagag
 2101 ttctgctctt gatgcccagg ctgggggtgca atggag

(2) INFORMATION FOR SEQ ID NO:2779:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1183 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2779

1 tgctgggatt accaagtgtg accccccgcc ccagcagctt cagcttttct gacaagaaga
 61 ctgacttttg gagtgggtgt gggtttgagg atctactcta tttccttttg ttcggctgcc
 121 cccacttcgc ttcccgtgac gaccactgac ttactcatga aaggccttcc cccagagctg
 181 agcacagagc ttaagcagac ccggaaactgg gggagctcaa caagtcttt ttttcgggtg
 241 gggggtataa taactgtatt caattcaggt gaaatgaaat acacaatgac aactttttaa
 301 ttctgaaggt aagtacgcaa tccgaaagac gtaaacattg tgggggaaat agtgactgtg
 361 tgagtatctc gctttgtaca gcagacctct atttaagtgg gttcttgga agggaatcat
 421 taaaatggtc caggacattt ctgcaaaagg tgccactca gcctaggcgt ggtggctcat

481 taagcactca gtaagtgcct tattttattta ccccaaataa ataaataaat ataaaaggat
 541 gactcctccg agtacagtcg ccaaaccagc agcagcaatc tcgggcccag cccagaccca
 601 caaaactagt ctctggaatc tgaacttagc cagcttcaga tgtttctgat gctgccaaata
 661 tttgagaagc actgtttgtg ttttgttttg tttttttgtt tgaaacagag tctcactctg
 721 tcaccagac tggagtagac cagtgcctac tcagctgact gcaactccgt gcaacacccc
 781 ccagccccta aggccttaagc gatcctccca agtagctaga accacagaca cacaccacca
 841 tgcccagcta agtttttgta tttttggtag agatgagggt ttacctagt gcccagactg
 901 gtgttgaatt cctgagctca agcaatccac ccccttcggc ctcccaaagt gctgggatta
 961 caagcgtgag ccactgtgcc aggcataaag cactgtttta gaagaacct ccaattctct
 1021 gaggacctg ctttttatct gaaatagcga tcacttctta attcactttt aaaagtgtgt
 1081 atatctacaa gaagaataga aactcaaccc ttgtggaact tgaccctgaa taatttttga
 1141 aaaaccaatt ctctggggaa ttttagctc aaatacctca ttt

(2) INFORMATION FOR SEQ ID NO:2780:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 209 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2780

1 aaaaaaaaaa aaaaaaagaa gaagtagttt ctgcttttag tcagataaac aagctctggg
 61 gagacttcct tctacatctg aaccagctca aaacaatcct tatgccaaag gggcatattt
 121 tgtggtggca tattctgatt tccttcattt gctttagggc agctggctgt tcaagtgggt
 181 tctctcgggg tctccaggtt ggttctaga

(2) INFORMATION FOR SEQ ID NO:2781:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 326 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2781

1 ctttctttct ttcctttctt tttttttt ttgagacagg gtcttcgctc tgtcaccagg
 61 gctggagtcg agtggcgcgca tcgcagctca ctgcaacctc cagctcccgg gttcaagtga
 121 ttcttctgcc tcagcctcct gagtagctgg gaccacagct actgccacca cccccgggta
 181 attttttttg tatttttagt agagacggtg tttcaccata ttggtcaggc tgatctcgaa
 241 ctccagacct caggtgatcc acctgccttg gcctcccaaa gtgctgggat aacaggtgtg
 301 agacaccagg cccggccaga tcatat

(2) INFORMATION FOR SEQ ID NO:2782:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 634 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2782

1 gatcctatct acgggaaaca tgaagagtaa tattctactg tggcctgggt gaccctgggc
 61 aagtcataga gcctctcaag accttggtca cttctctgt gagatgaggt atgggctgga
 121 ggcaggtcag tggctctcgg gctttattaa aacatcaata gtttgccgca cccactccc
 181 tgtgaatttc ccattcacta ggtctggagc ggtgccgaaa acgtgcattt ctaacagggtg
 241 tccacacgca gctgctcgcc gacacgctgg ggcccgggct ttgagaacca ctcttgatgc
 301 agcatgttcc tttctgattg tgccacgcta aggctctgct tcttgttgga aggagtggg
 361 tctttctcac cctccagaaa tcttgagggt atctttcagc attggtgggc aggtaaaacc
 421 cagaaacact gtgcttatta gaggggaagg tgtattgagt gacccccaat aaaacagggg
 481 gcccagggcc gcgcgcagtg gctcacgcct gtaatcccag caatttggga ggctaaggcg
 541 ggcggatcat gaggtcagga gatcgagacc atcctggcta acacggtgga aacccatct
 601 ctactaaaaa tacaaaaaat tagctggacg tggt

(2) INFORMATION FOR SEQ ID NO:2783:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1063 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2783

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1 agataagcaa tagggcatgg gcaggcctgc ctccaaggag cagccccagg gccgaggaga
61 gagagctggc gctggccccag gggacttgag tttgatggga aagcttgagc acagtggggg
121 agctgcctgg tctttccagt cttggctttt ggctctaagc acagcttttt tttttttttt
181 ttttaattgtt gtatcatgag gcgccttcca ctcagctgcc tccccacgtt aggggatgga
241 cacagcactg gcagggatcc tgtgtgtctc agtttcccta ttgactctct gtggcctaga
301 gatgtatggt agaattccac actatgcttt ttttccaccg tgtttttttt tttttttttt
361 tttgagacag ggtctctctc tgtcaccag gctggagtg cagtggcgcaa tcttggtcca
421 ctgcaacctc cacctcccca ggcaggcccc tctgactcag ctgggactac aggcattgcac
481 caccagcacc cagcaaaata tttttatatt ttagtagaga tggggtttcg tcacattggc
541 caggctggtc ttgaactcca gagctcaagc aatccgcccc cctcagcctc ccaaagtgtc
601 gggattacaa tgcccagccc actttttttt ttacttttta caattttatt cttaaaattg
661 tggtaaaaca catatcacat aaaatttacc attttaactc taagtatcca gctcagtggc
721 actaagacta cacttttggg tgtcatagcg tgggtaacag agaagagaat gctactgcgt
781 ctcgtggaga gaggccagg gataccgcta aacatgcgac aatgcacagg acagtcacct
841 ccccaccaca aaacaccacc cagcccaaaa tttcaacagg gccaccatgg agaaaacctg
901 gccagaggaa ttcacctcct gcaactcctc caacaggaga gctggttttc ctctccagta
961 ccagcttgtg gctgccctct gtcttgggag ggtgacttaa gggcacatcc cacctgatta
1021 ctgtgggctc tggatgggtg ctgagtcctg gtctggggaa cag

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(2) INFORMATION FOR SEQ ID NO:2784:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1532 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2784

```

1 aaattaccca ggcattggtg tgtgcgcctg tagtcccacc aacttgggag gctgaggcag
61 gagaattcct tgaatctggg aggcggaggg tgcagtgaac cgagatagtg ccagctgagg
121 caggagaatt ccttgagggt agaggttacg gtgagccaa atggcgccac cacactccag
181 cctgagtgac aaagcgagac tctgtctcaa aaaaaaaaa ataaagaaaa ttttaaatga
241 agtgccaggg actttatgcg catgtcatgt ggagctagct acaggggtccc ggggaagctg
301 tcttgacaaa aggagccata aacctctaag ggcactgccg gctgatgtct cctggctctc
361 gcctcctccc tcttttctcg acctgtcctt gacctgtga tgttgttggg gcagttgaac
421 tgggttattt gcgttgctca ctgccatgtc atcctttgtt ttgtagatgc cgtggaaagc
481 agatactctg taagtacaca ttcatatac attatattta aaagtactcc actgaacagt
541 gaaatatttc cagactcacc cagccttgca ttcacacgaa ttcttccccg ctccctagcc
601 tgttcagacc agaagccctg ggcttctctg actagccttg gccagttctg atttcgaata
661 ttctctcctg caatttccat cattacatct cagccacac gtgaagggat tgggactctg
721 ggggtgcttag cgccaaacaa gcaaagcaca catttcgttt aacgccaaag tctaggtctt
781 ggaagtgaag cagatctagg gtgtatgctt ggaggagtg agcagctgac agctcattgc
841 aatttagccg atactaatta cccctacac accaggccat cagctgcagg aggacaccca
901 agcttcttga cctcagttca ccttctgatg agggaatcag acatgtgatc acttatcata
961 aagccaaagt agctatgcca gagcctatgg gaacacagaa cagagacctc gctagtgcce
1021 tcttcccaaa ggaatcattt ggaatggccc atgaagaatg aatggagtga tgatgccagc
1081 attgagggag aaagatcagc aggagcacaa ggtgagggga tgaccagttt caagcagttg
1141 gggatgggaa agaagagtgt gacagtgaac agtgacggga gaaagataag tcagggtcta
1201 aatccaaaag atttacatcc cttgttaaga agcttcattc ttaggaaat ggagttagga
1261 atctgcattt ggcagatggg agggtttatg aaagacacag agggccacgt tcaacttttg
1321 caaagacgtg tcttccaatc ccaacctttt tgtgagctac ccagcaatgc aggagttaac
1381 tgggcagcta atatctgaag aaatgaggca tttgccgcat aaacttcttt taggtctggg
1441 aagaactttc agcaaaagatt tcaggtagct ctteccagtg cccctggctt cctttgtttt
1501 gccatgtca ggactcttgt aaaacagagc tc

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(2) INFORMATION FOR SEQ ID NO:2785:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 492 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2785

```

1 gagctccagc tttccagctg tcttttgggt gagcctgtct tcctcaagct caagcttctc
61 tatctataaa gtggagatgg tgatgacaat gatgataaga gcaacctatt aggattttta
121 ggatgaaatg agcaactgca accaccatat aaaagctgca agctgcaaac caccatataa

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181 aagctgggtg atctcaagct cttttcatca cttgggcaat agtaggtgtg gatgggggac
 241 ttaactttgat ttggccatga aatgaccctg ccacatatgg agaattgtagc agttgcttac
 301 ccaaggcata ggattcaacc aaggccaggc tttgacttag gaatcagaga cccacattaa
 361 catttgactt cccgcttctt agccatgtca ccatgggcaa atttcttggc ctctcaagac
 421 ctctgcttcc taatctgtaa actgggaatc ataaactccc tcaattggtt gttgcaaggg
 481 ttgaatgagc ac

(2) INFORMATION FOR SEQ ID NO:2786:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2069 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2786

1 ctatcaatct ccagagcttt ttcttttttaa gtgtgagcga gtttattaga gaagtaaaga
 61 gacccaagag tgcctactcc atagacagag cagccactgt gacactgtac ccattaaaca
 121 ctaactctcc attgcccctc cagcaacccc tagcaccac tgtctacttt ctgtctctat
 181 gtggttgtct atttgaggga catcacataa gtggagtcac atatttgtcc ttctcatgtct
 241 cccttatttc atttagcata acgtttttcaa ggggttccctg tgttgtgaat atatcagaat
 301 ttcatctctt ttttaaggta gaatcatatc attttaaaac atttcagttg gaccatctaa
 361 gttcagtcct tcatttttcaa caattaaaaa acagccctca accgggtgca tctcacgtta
 421 gctagagaca gaactggagc tagaagtcag atctcttacc aaagtgtcct ttcttcttct
 481 gtgggtaagt ggggcacctg tgggacgctg tgctgggctg acatgggtgc ttgatgaagt
 541 tacttggtgg actgatgtga ttgatgtcca acatgtatgc agggacagag gctatggctc
 601 ctacagagca ggcattggaga gaaggagaaa tacatacggg caggagccag gagagggagg
 661 gtgtagtgag cagagaccgc gccactgcac tccagcctga gtgacagagt gagaatccat
 721 ctaaaaaatt gcttactaaa gaagtgggtct cctgaggtct taagacgttc ctggcaatgt
 781 cttgagtggg tgggagagag cctccagtca ttgagctgtg gaatttcaga ggtgagaacc
 841 acacctaac ccattact ttccctgtt tgcctcagtg acacagctgc aggaaccctg
 901 gtgggtgttg tattaagtaa atttgacctt tattctttgc agatctgtga aatgttgtct
 961 tctgaggggc cactgtatc tgaagtgtct aggactcctt ggggctctctg aagtcacaga
 1021 gagaacctgc aggggtgggg accagtgtgt gacagccctg ctttgcattt tctttgagaa
 1081 gtgctgtcat ttgcatcttc tctccaccag gggaaatctc aatcttgaga ggtgtgatca
 1141 taacttgctt gttttctgt cgctacagag aacggaaggc tcccttgatg gaacttagac
 1201 agcaaggcca catgcacatc cctggaagga catccatgtt ccgagaagaa cagatgatcc
 1261 ctgtatttca agacctctgt gcacttattt atgaacctgc cctgctccca cagaacacag
 1321 caattcctca ggctaagctg ccggttctta aatccatcct gctaagttaa tgttgggtag
 1381 aaagagatac agaggggctg ttgaatttcc cacataccct ccttccacca agttggaaca
 1441 tccttggaag ttgggaagag cacaagagga gatccagggc aaggccattg ggatattctg
 1501 aaacttgaat attttgtttt gtgcagagat aaagaccttt tccatgcacc ctcatacaca
 1561 gaaaccaatt ttctttttta tactcaatca tttctagcgc atggcctggt tagaggctgg
 1621 ttttttctct ttctcttttg tcttcaaaag gcttgtagtt ttgggtagtc cttgttcttt
 1681 ggaatacac agtgctgacc agacagcctc cccctgtccc ctctatgacc tgcctcctca
 1741 caaatgggaa aaccagacta cttgggagca ccgctgtgta aataccaacc tgaagacacg
 1801 gttcattcag gcaacgcaca aaacagaaaa tgaagggtga acaagcacat atgttcttca
 1861 actgtttttg tctacactct ttctcttttc ctctacatgc tgaaggctga aagacaggaa
 1921 agatgggtgcc atcagcaaat attattctta attgaaaact tgaaatgtgt atgtttctta
 1981 ctaattttta aaaatgtatt ccttgccagg gcaggcaagg tcgtcacgcc tgtaatccca
 2041 gcacttcagg aggtcgaggt gggcgatc

(2) INFORMATION FOR SEQ ID NO:2787:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2557 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2787

1 gaattccggg agaagtgacc agagcaattt ctgcttttca cagggcgggt ttctcaacgg
 61 tgacttgtgt gcagtgcctt ctgctgagcg agtcatggcc cgaaggcaga actaactgtg
 121 cctgcagctc tcaactctag gatgcagccg aggtgggccc aaggggccac gatgtggctt
 181 ggagtcctgc tgaccttct gctctgttca agccttgagg gtcaagaaaa ctctttcaca
 241 atcaacagtg ttgacatgaa gagcctgccg gactggacgg tgcaaatgg gaagaacctg
 301 accctgcagt gcttcgcgga tgcagcacc acctctcacg tcaagcctca gcaccagatg
 361 ctgttctata aggatgacgt gctgttttac aacatctcct ccatgaagag cacagagagt

421 tattttatttc ctgaagtcgc gatctatgac tcagggacat ataaatgtac tgtgattgtg
481 aacaacaaag agaaaaccac tgcagagtac cagctgttgg tggaaggagt gccagtcctc
541 aggttgacac tggacaagaa agaggccatc caagtgagg tctgaggggt caactgttct
601 gtcccagagg aaaaggcccc aatacacttc acaattgaaa aacttgaact aaatgaaaaa
661 atggtcaagc tgaagagaga gaagaattct cgagaccaga attttgtgat actggaattc
721 cccgttgagg aacaggaccg cgttttatcc ttcgatgtc aagctaggat catttctggg
781 atccatattc agacctcaga atctaccaag agtgaactgg tcaccgtgac ggaatccttc
841 tctacacca agttccacat cagccccacc ggaatgatca tggaaggagc tcagctccac
901 attaagtga ccattcaagt gactcacctg gccaggagt tccagaaat cataattcag
961 aaggacaagg cgattgtggc ccacaacaga catggcaaca aggtctgtga ctcagtcag
1021 gccatggtgg agcacagtgg caactacacg tgcaagtgagg agtccagccg catatccaag
1081 gtccagcaga cgtgtgtcaa cataacagaa ctattttcca agccgaact ggaatccttc
1141 ttcacacatc tggaccaagg tgaagactg aacctgtcct gctccatccc aggagcacct
1201 ccagccaact tcaccatcca gaaggaagat acgatttgtt cacagactca agatttcacc
1261 aagatagcct caaagtcgga cagtgaggac tatatctgca ctgcaggat tgacaaagt
1321 gtcaagaaaa gcaacacagt ccagatagtc gtatgtgaaa tgctctccca gccaggatt
1381 tcttatgatg cccagtttga ggtcataaaa ggacagacca tcgaagtcgg ttgcaatcg
1441 atcagtggaa ctttgctat tcttaccac ctttataaaa caagtaagt tttggagaat
1501 agtaccaga actcaaatga tcctgcggtt tcaagaca accccactga agacgtcgaa
1561 taccagtgtg ttgcagataa ttgccattcc catgccaaa tgtaagtga ggttctgagg
1621 gtgaaggtag tagccccggt ggatgaggtc cagatttcta tctgtcaag taagtggtg
1681 gagtctggag aggacattgt gctgcaatgt gctgtgaatg aaggatctgg tccatcacc
1741 tataagtttt acagagaaaa agagggcaa ccttctatc aaatgacctc aaatgccacc
1801 caggcatttt ggaccaagca gaaggctagc aaggaacagg agggagagta ttactgcaca
1861 gccttcaaca gagccaacca cgctccagt gtcccagaa gcaaaatact gacagtcaga
1921 gtcattcttg cccatggaa gaaaggactt attgcagtgg ttatcatcgg agtgatcatt
1981 gtctctctga tcattgcggc caaatgttat tttctgagga aagccaaggc caagcagatg
2041 ccagtggaaa tgtccaggcc agcagtacca cttctgaact ccaacaacga gaaaatgtca
2101 gatcccaata tgaagctaa cagtcattac ggtcacaatg acgatgtcag aaaccatgca
2161 atgaaaccaa taaatgataa taaagagcct ctgaactcag acgtgcagta cacggaagt
2221 caagtgtcct cagctgagtc tcacaaagat ctaggaaaaga aggacacaga gacagtgtac
2281 agtgaagtcc ggaagctgt cctgatgcc gtggaaagca gatactctag aacggaaggc
2341 tccttgatg gaacttagac agcaaggcca gatgcacatc cctggaagga catccatgtt
2401 ccgagaagaa cagataatcc ctgtatttca agacctctgt gcacttattt atgaacctgc
2461 cctgtctcca cagaacacag caattcctca ggctaagctg ccggttctta aatccatcct
2521 gctaagttaa tgttggtag aaagagatac agagggg

(2) INFORMATION FOR SEQ ID NO:2788:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41693 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2788

1 gaccagagca atttctgctt ttcacagggc ggttttctca acggtgactt gtgggcagt
61 ctttctgctg agcgagtcac ggcgcgaagg cagaactaac tgtgcctgca gtcttcaact
121 tcaggatgca gccgaggtgg gcccaagggg ccacgatgtg gcttgagtc ctgctgaccc
181 ttctgctctg ttcaagcctt gaggggtcaa aaaactcttt cacaatcaac agtgttgaca
241 tgaagagcct gccggactgg acggtgcaaa atgggaagaa cctgaccctg cagtgtctcg
301 cggtatgtag caccacctct cagtcacagc ctcagcacca gatgctgttc tataaggatg
361 acgtgctgtt ttacaacatc tcctccatga agagcacaga gatttatttt attcctgaag
421 tccgatctca tgactcaggg acatataaat gtactgtgat tgtgaacaac aaagagaaaa
481 ccactgcaga gtaccagggt ttggtggaag gagtgcacag tcccagggtg acactggaca
541 agaaagaggg catccaagggt gggtatcgtga ggtcaactg ttctgtccca gaggaagagg
601 ccccaataca cttcacaatt gaaaaacttg aactaaatga aaaaatggtc aagctgaaaa
661 gagagaagaa ttctcgagac cagaattttg tgatactgga attccccgtt gaggaacagg
721 accgcgtttt atccttccga tgtcaagcta ggatcatttc tgggatccat atgcagacct
781 cagaatctac caagagtga cgtgtcaccg tgacggaate cttctctaca ccaagttcc
841 acatcagccc caccggaatg atcatggaag gagctcagct ccacattaag tgcaccattc
901 aagtgactca cctggcccag gaggttccag aaatcataat tcagaaggac aaggcgattg
961 tggcccacaa cagacatggc aacaaggctg tgtactcagt catggccatg gtggagcaca
1021 gtggcaacta cagtgcaaaa gtggagtcca gccgcatatc caaggtcagc agcatcgtgg

1081 tcaacataac agaactattt tccaagcccg aactggaatc ttccttcaca catctggacc
 1141 aaggtgaaag actgaacctg tctgtctcca tcccaggagc acctccagcc aacttcacca
 1201 tccagaagga agatagcatt gtgtcacaga ctcaagattt caccaagata gcctcaaagt
 1261 cggacagtgg gacgtatatt tgcactgcag gtattgacaa agtgggtcaag aaaagcaaca
 1321 cagtcacagat agtcgtatgt gaaatgctct cccagcccgag gattttcttat gatgccagct
 1381 ttgaggtcat aaaaggacag accatcgaag tccgttgcca atcgatcagt ggaactttgc
 1441 ctattttctta ccaactttta aaaacaagta aagttttggg gaatagtacc aagaactcaa
 1501 atgatcctgc ggtattcaaa gacaacccca ctgaagacgt cgaataccag tgtgttgag
 1561 ataattgcca tccccacgcc aaaatgttaa gtgaggttct gaggtggaag gtgatagccc
 1621 cgggtgatga ggtccagatt tctatcctgt caagtaaggt ggtggagctc ggagaggaca
 1681 ttgtgtctga atgtgtctgt aatgaaggat ctggtcccat cactataag ttttacagag
 1741 aaaaagaggg caaaccttc tatcaaata cctcaaatgc caccaggga ttttgagcca
 1801 agcagaaggg taacaaggaa caggagggag agtattactg cacagccttc aacagagcca
 1861 accacgcctc cagtgtcccc agaagcaaaa tactgacagt cagagtcatt ctgtcccat
 1921 ggaagaaagg acttatttga gtggttatca tccgagtgat cattgctctc ttgatcattg
 1981 cggccaaatg ttattttctg aggaaagcca aggccaaagc gatgccagtg gaaatgtcca
 2041 ggcagcaggt accacttctg aactccaaca acgagaaaat gtcagatccc aatatggaag
 2101 ctaacagtca ttacggtcac aatgacgatg tccgaaacca tgcaatgaaa ccaataaatg
 2161 ataataaaga gcctctgaac tcagacgtgc agtacacgga agttcaagtg tctcagctg
 2221 agtctcacia agatctagga aagaaggaca cagagacagt gtacagtga gtccggaaa
 2281 ctgtccctga tgcctgggaa agcagatact ctagaacgga aggtccctt gatggaactt
 2341 agacagcaag gccagatgca catccctgga aggacatcca tgttccgaga agaacagatg
 2401 atccctgtat ttcaagacct ctgtcc
 1 gaattccggg agaagtgacc agagcaattt ctgcttttca caggggcggg ttctcaacgg
 61 tgacttgttg gacagtgcct ctgtgagcgt agtcatggcc cgaaggcaga actaactgtg
 121 cctgcagctc tcaactcag gatgcagccg aggtgggccc aaggggccac gatgtggctt
 181 ggaagtcctg tgacctctc gctctgttca agccttgagg gtcaagaaaa ctctttcaca
 241 atcaacagtg ttgacatgaa gagcctgccg gactggacgg tgcaaaatgg gaagaacctg
 301 accctgcagt gcttcgcgga tgcagcacc acctctcacg tcaagcctca gcaccagatg
 361 ctgttctata aggatgacgt gctgttttac aacatctcct ccatgaagag cacagagagt
 421 tattttattc ctgaagtcg gatctatgac tcaggagcat ataatgtac tgtgattgtg
 481 aacaacaaag aaaaaaccac tgacagatc cagctgttgg tggaggagt gccagctccc
 541 aggtgacac tggacaagaa agaggccatc caaggtggga tctgagggt caactgttct
 601 gtcccagagg aaaaggcccc aatacacttc acaattgaaa aacttgaact aaatgaaaaa
 661 atggtcaagc tgaagagaga gaagaattct cgagaccaga attttgtgat actggaattc
 721 cccgttgagg aacaggaccg cgttttatcc ttcgatgtc aagctaggat cattctggg
 781 atccatagc agacctcaga atctaccaag agtgaactgg tcaccgtgac ggaatccttc
 841 tctacacca agttccacat cagccccacc ggaatgatca tggaggagc tcagctccac
 901 attaatgca ccaattcaagt gactcacctg gccaggaggt ttccagaaat cataattcag
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1621 ttttttctct tttccttttg tcttcaaaag gctttagatt ttgggtagtc cttgttcttt
1681 ggaaatacac agtgctgacc agacagcctc cccctgtccc ctctatgacc tcgccctcca
1741 caaatgggaa aaccagacta cttgggagca ccgctgtgta aataccaacc tgaagacacg
1801 gttcattcag gcaacgcaca aaacagaaaa tgaagggtga acaagcacat atgttcttca
1861 actgtttttg tctacactct ttctcttttc ctctacatgc tgaaggctga aagacaggaa
1921 agatgggtgcc atcagcaaat attattctta attgaaaact tgaatgtgt atgtttctta
1981 ctaattttta aaaatgtatt ccttgccagg gcaggcaagg tgcacagccc tgaatccca
2041 gcacttcagg aggctgaggt gggcggtac
1 gaattccggg agaagtgacc agagcaattt ctgcttttca caggcggggt ttctcaacgg
61 tgacttgttg gcagtgcctt ctgctgagcg agtcatggcc cgaaggcaga actaactgtg
121 cctgcagtct tcaactcctg gatgcagccg aggtgggccc aaggggccac gatgtggctt
181 ggagtcctgc tgaccttctt gctctgttca agccttgagg gtcaagaaaa ctctttcaca
241 atcaacagtg ttgacatgaa gacgctgccc gactggacgg tgcaaaatgg gaagaacctg
301 acctgcagtg gcttcgcgga tgtagcacc acctctcacg tcaagcctca gcaccagatg
361 ctgttctata aggatgacgt gctgttttac aacatctcct ccatgaagag cacagagagt
421 tattttattc ctgaagtccg gatctatgac tcagggacat ataaatgtac tgtgattgtg
481 aacaacaaag agaaaaccac tgcagagtac cagctgttgg tggaaaggag gccagtcctc
541 aggttgacac tggacaagaa agaggccatc caagggtgga tgcgtgaggt caactgttct
601 gtcccagagg aaaaggcccc aatacacttc acaattgaaa aacttgaact aaatgaaaaa
661 atggtcaagc tgaagagaga gaagaattct cgagaccaga attttgtgat actggaattc
721 cccgttgagg aacaggaccg cgttttatcc ttccgatgac aagctaggat catttctggg
781 atccatagtc agacctcaga atctaccaag agtgaactgg tcaccgtgac ggaatccttc
841 tctacaccca agttccacat cagccccacc ggaatgatca tggaaaggag tcagctccac
901 attaagtgca ccattcaagt gactcacctg gccaggaggt ttccagaaat cataattcag

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961 aaggacaagg cgattgtggc ccacaacaga catggcaaca aggctgtgta ctcagtcag
1021 gccatggtgg agcacagtgg caactacacg tgcaaagtgg agtccagccg catatccaag
1081 gtcagcagca tcgtggtcaa cataacagaa ctattttcca agcccgaact ggaatcttcc
1141 ttcacacatc tggaccaagg tgaaagactg aacctgtcct gctccatccc aggagcacct
1201 ccagccaact tcaccatcca gaaggaagat acgatttgtt cacagactca agatttcacc
1261 aagatagcct caaagtcgga cagtgggacg tatatctgca ctgcaggatg tgacaaagtg
1321 gtcaagaaaa gcaacacagt ccagatagtc gtatgtgaaa tgctctccca gccaggatt
1381 tcttatgatg cccagtttga ggtcataaaa ggacagacca tcgaagtcg ttgcgaatcg
1441 atcagtggaa ctttgcttat ttcttaccaa cttttaaaaa caagtaaagt tttggagaat
1501 agtaccaaga actcaaatga tcctgcggtg ttcaaagaca accccactga agacgtcgaa
1561 taccagtgtg ttgcagataa ttgccattcc catgccaaaa tggttaagtga ggttctgagg
1621 gtgaagggtg tagccccggg gtagtgagtc cagatttcta tcctgtcaag taagggtgtg
1681 gagtctggag aggacattgt gctgcaatgt gctgtgaatg aaggatctgg tcccatcacc
1741 tataagtttt acagagaaaa agagggcaaa ccttctatc aaatgacctc aaatgccacc
1801 caggcatttt ggaccaagca gaaggctagc aaggaacagg agggagagta ttactgcaca
1861 gccttcaaca gagccaacca cgctccagc gtccccagaa gcaaaatact gacagtcaga
1921 gtccattcttg ccccatggaa gaaaggactt attgcagtgg ttatcatcgg agtgatcatt
1981 gctctcttga tcattgctggc caaatgttat tttctgagga aagccaaggc caagcagatg
2041 ccagtggaaa tgtccaggcc agcagtacca cttctgaact ccaacaacga gaaaatgtca
2101 gatcccaata tggaagctaa cagtcattac ggtcacaatg acgatgtcag aaaccatgca
2161 atgaaaccaa taaatgataa taaagagcct ctgaactcag acgtgcagta cagggaagtt
2221 caagtgtcct cagctgagtc tcacaaagat ctaggaaaaga aggcacacaga gacagtgtac
2281 agtgaagtcg ggaagctgt ccctgatgcc gtggaaagca gatactctag aacggaaggc
2341 tcccttgatg gaacttagac agcaaggcca gatgcacatc cctggaagga catccatggt
2401 ccgagaagaa cagataatcc ctgtatttca agacctctgt gcacttattt atgaacctgc
2461 cctgctccca cagaacacag caattctcga ggctaagctg ccggttctta aatccatcct
2521 gctaagttaa tgttggttag aaagagatac agagggg

(2) INFORMATION FOR SEQ ID NO:2789:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 562 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2789

1 tggatcatctc agtttctttt ctcacctga ctgcaagatg aaactccttg tgctagctgt
61 gctgctcaca gtggccgccc cgcagacgg catcagccct cgggcccgtg ggcagttccg
121 caaaatgatc aagtgcgtga tcccggggag tgacccttc ttggaatata acaactacgg
181 ctgctactgt ggcttggggg gctcaggcac ccccgtagg gaactggaca agtgcgtgca
241 gacacatgac aactgctatg accaggccaa gaagctggac agctgtaaat ttctgctgga
301 caaccggtac acccacacct attcactctc gtgctctggc tcggcaatca cctgtagcag
361 caaaaacaaa gagtgtgagg ccttcatttg caactgcgac cgcaacgctg ccatctgctt
421 ttcaaagct ccatataaca aggcacacaa gaacctggac accaagaagt attgtcagag
481 ttgaatatca cctctcaaaa gcatacctc tatctgctc atctcacact gtactctcca
541 ataaagcacc ttgttgaag aa

(2) INFORMATION FOR SEQ ID NO:2790:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3375 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2790

1 ctgcagaggc tcaatcactg ttcattgcag ccttgacctc cctggctcac gagatcctcc
61 catctcagcc tcttgagttg ctgggatcac aggtgcaatc caccaccaca cctggttaac
121 attttttttt ttagagatga ggtctctcta tgttgcccag gctgcacttc cttctgtct
181 cctttatccc agcgtccgac tgaactgacg gctttgcttt ccccaaccag cccgtgaagc
241 tgggctgagt acaaagtggg gggatgagg gtcaagattg taagatctga aaactccaga
301 aaccatccct ttggttaaca gttgctaagg acaaatgcat aacatatttt ccagtgtacc
361 catgctggca aatcgtgagg gtcattctct caacagacag attcaaggcc agccccaaac
421 tcagccaaga gcaaagcaaa cactccagcc ttatctgggc agggttgtgt ggagactgac
481 tataagacta tacctgagac tggatcatct agttcttttc tcaccttgac tgcaagatga
541 aactccttgt gctagctgtg ctgctcacag gtaggcaagt ctccccggct ccaccgcct

601 ttctctccca agtgagctaa gatctcactc ctctggaatg ggggccacac acagcaaaaca
661 gggatggcca gcccgcagct ctcaattcga ggttcccagt gggcttaagg gctcctctat
721 tgggggttccc tcaaggctgg cactttttca acctgcaagt ctgaactcag attgcctgag
781 ctaagaaagc ttgcctttat tttctttttt ccagacaggg tcttgctcta taaccaggc
841 tggagtccag tggcatgac atagctcacc acagcttcca actcgtgggc tcaagtgatc
901 ctcccacctt actcaactaa gtagttaggc caatctccca tttattttat tttatttttaa
961 tttttatttt tattttactt tattttattt ttgagacggg gctcactctg tcgccaggct
1021 ggagtggcgt gggctgatct cagatcacta caacctccat ctctgggttc aaataattct
1081 cttgcctcag cctctcaagt agctggactt gtagctctca agtagctggc acacaccacc
1141 atgccagct aattttttgt gtgttttttt tggtagagac aggttttcac catgttggcc
1201 aggctgggtg acctcccttt tagattctcc tcactctgct ctattcttcc ctttctaaa
1261 tgcagtatcc agtttcttta cttatacact ttattattat tcttattatt attgagacag
1321 agtcttgctt tgtgcccagg gctggagtac agtgggtcga tctcggctca ctgcaagctc
1381 cacctgctgg gttcacgcca ttctcccgcc tcagcctccc cagtagctgg gactaaagcg
1441 cctgccacca cgccccgcta atttttttgt atttttaata aagacggggg ttcactcgtg
1501 tagccaggat ggtctcgatc tcatgacctt gtgatccgcc tgcctcggcc tccaaatgc
1561 tggattacag gcatgagcca ccgtgcccg ccttatcaca tttattattt attgttttcc
1621 tctccacta ggttgtaagc tccatgaggt tagagattat tattattatt attattatta
1681 ttattattat tattattatt attatatctg ttcactgctg tatctctagc tctagagaca
1741 gagcctggca catagtaagt gctcaataaa tattcactgg ataaacagtg cagatagttt
1801 aaaactatct gacctaaggga ggctgaggca ggagaatggc gtgaaccccg gaagcagagt
1861 ttgcagttag ctgaaatcgt gtcactgcac tccaacctgg gcaacagagc aagactccat
1921 ctcaaaaaaa aaaaaaaac tatcaggcct agctgggtgg cacatgctg taatcctagc
1981 tgaggcggta ggggtccaga agaagaagaa gaagaaaaag aagaagatat atatatatat
2041 acacacacac aaagatataa actttatata tataaagttt tcattaaaaa aaaaaaaac
2101 ctctaccac tttcacttta ccaggttcct ggttccaacg gtcttcagag gaggcagctg
2161 gcaggggcca gggaggcagc gtgggaccgg agggagcagg aaggcagtg gtccccggg
2221 tgctggcaga ccgatttgaa ctctggctat gtcttcttgc agtgcccgcc gccgacagcg
2281 gcatcagccc tcgggcccgtg tggcagttcc gcaaaatgat caagtgcgtg atccccggga
2341 gtgacccctt cttggaatac aacaactacg gctgctactg tggcttgggg ggctcaggca
2401 cccccgtgga tgaactggac aagtaagtga tccgcctgca ggaaaattgg agtgctgccc
2461 gggggcgggg tggggcacca cgccaaggat ctacagagc atacaaagg gacttgcata
2521 tctgctaagg ataacatatt ttcacctctt gtcaataaaa catatatgtt ccaagaggac
2581 cctgtagcga acgcaccccg ttagagatgg aaacattgac cgacgtgcaa aacagtgggc
2641 gatgctgccc tccagtggca gaatgtagca acattaaaca tcacagcacc tatccacgtg
2701 tcattttcta gcagtgggtg tcactgcccc ttctggaata caggatttta ctgtattctt
2761 gcaaacatgt taaaaatcgc ttccaggcca ggcgcggtg ctcatgctg taatccagc
2821 actttgggag gccgagcgcg gcggtactc tgaggtcagg agttcgagac cagcctggcc
2881 aacatggtga aacctgtct ctactaaaa atacaaaaat tagccggaca tgggtggcag
2941 cgctgtgaac ccagctact tgggagactg agttggaggt ttcatgagcc aaggtcgtgt
3001 cactgctgtc cagcctgggt aacagagcaa ctctgtctca aaaaaaaaa atgctttcaa
3061 taaatatatg ataaaaagac ttatatttt tcaagccata ggatcatttc tctgaagca
3121 tcttggcgaa gtcacccca cctgttctcg agagtgggca ggtgagggct gacctattgc
3181 tctgcaetta ctctatctc agctgtccct cccactttcc aggtgctgcc agacacatga
3241 caactgctac gaccaggcca agaagctgga cagctgtaaa tttctgctgg acaaccgta
3301 caccacacac tattcatact cgtgctctg ctccgcaatc acctgtagca gtaggtttat
3361 ccttccttg accta

(2) INFORMATION FOR SEQ ID NO:2791:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2834 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2791

1 gcccactccc accgccagct ggaacctgg ggactacgac gtccctcaaa ccttgcttct
61 aggagataaa aagaacatcc agtcatggat aaaaatgagc tggttcagaa ggccaaactg
121 gccgagcagg ctgagcgata tgatgacatg gcagcctgca tgaagtctgt aactgagcaa
181 ggagctgaat tatccaatga ggagaggaat cttctctcag ttgcttataa aaatgttgta
241 ggagcccgtg ggtcatcttg gagggctcgtc tcaagtattg aacaaaagac ggaagtgct
301 gagaaaaaac agcagatggc tcgagaatac agagagaaaa ttgagacgga gctaagagat
361 atctgcaatg atgtactgtc tcttttgaa aagttcttga tcccaatgc ttcacaagca

421 gagagcaaaag tcttctatatt gaaaatgaaa ggagattact accgttactt ggctgaggtt
481 gccgctgggtg atgacaagaa agggattgtc gatcagtcac aacaagcata ccaagaagct
541 tttgaaatca gcaaaaagga aatgcaacca acacatccta tcagactggg tcttgccctt
601 aacttctctg tgttctatta tgagattctg aactccccag agaaagcctg ctctcttgca
661 aagacagctt ttgatgaagc cattgctgaa cttgatacat taagtgaaga gtcatacaaa
721 gacagcacgc taataatgca attactgaga gacaacttga cattgtggac atcggatacc
781 caaggagacg aagctgaagc aggagaagga ggggaaaatt aaccggcctt ccaacttttg
841 tctgcctcat tctaaaattt acacagtaga ccatttgtca tccatgctgt cccacaaata
901 gttttttgtt tacgatttat gacaggttta tgttacttct atttgaattt ctatatattc
961 catgtgggtt ttatgtttaa tattagggga gtagagccag ttaacattta gggagttatc
1021 tgttttcatc ttgaggtggc caatatgggg atgtggaatt tttatacaag ttataagtgt
1081 ttggcatagt acttttggtt cattgtggct tcaaaagggc cagtgtaaaa ctgcttccat
1141 gtctaagcaa agaaaactgc ctacatactg gtttgcctg gcggggaata aaagggatca
1201 ttggttccag tcacaggtgt agtaattgtg ggtactttta gggttgaggc acttacaagg
1261 ctgtggtaga atcataccac atggatacca catattaaac catgtatatc tgtggaatac
1321 tcaatgtgta cacctttgac tacagctgca gaagtgttcc tttagacaaa gttgtgacc
1381 atttttactc ggataagggc agaaacggtt cacattccat tatttgtaaa gttactgtct
1441 gttagctttc attatttttg ctacactcat tttatttgta tttaaatgtt ttaggcaacc
1501 taagaacaaa tgtaaaagta aagatgcagg aaaaatgaat tgcttggtat tcattacttc
1561 atgtatatca agcacagcag taaaacaaaa acccatgtat ttaacttttt tttaggattt
1621 ttgcttttgt gatttttttt tttttttttt gatacttgcc taacatgcac gtgctgtaaa
1681 aatagttaac agggaaataa cttgagatga tggctagctt tgtttaatgt cttatgaaat
1741 tttcatgaac aatccaagca taattgttaa gaacacgtgt attaaattca tgaagtggga
1801 ataaaagttt tatgaatgga cttttcaact actttctcta cagcttttca tgtaaattag
1861 tcttggttct gaaacttctc taaaggaaat tgtacattct ttgaaattta ttccttattc
1921 cctcttgcca gctaattggc tcttaccag tttaaacaca aaatttatca taacaaaaat
1981 actactaata taactactgt tccatgtcc catgatcccc tctcttctc cccaccctga
2041 aaaaaatgag ttcctatttt ttctgggaga gggggggatt gattagaaaa aaatgtagt
2101 tgttccattt aaaatttttg catatggcat tttctaactt aggaagccac aatgttcttg
2161 gcccatcatg acattgggta gcattaactg taagttttgt gcttccaaat cacttttttg
2221 tttttaagaa tttcttgata ctcttatagc ctgccttcaa tttgatcct ttattctttc
2281 tatttgtcag gtgcacaaga ttaccttctt gttttagcct tctgtcttgt caccacacat
2341 tcttacttgg tggccatgta cttggaaaaa ggcgcgatga tctttctggc tccactcagt
2401 gtctaaggca cctgcttcc tttgcttgca tcccacagac tatttccctc atcctattta
2461 ctgcagcaaa tctctcctta gttgatgaga ctgtgtttat ctccctttaa aacctacct
2521 atcctgaatg gtctgtcatt gtctgccttt aaaatccttc ctctttcttc ctctctatt
2581 ctctaataaa tgatggggtc aagttatacc caaagctcac tttacaaaaat atttctcag
2641 tactttgcag aaaacaccaa acaaaaatgc cattttaaaa aaggtgtatt ttttctttta
2701 gaatgtaagc tcctcaagag cagggacaat gttttctgta tgttctattg tgcctagtac
2761 actgtaaatg ctcaataaat attgatgatg ggaggcagtg agtcttgatg ataagggtag
2821 gaaactgaaa tccc

(2) INFORMATION FOR SEQ ID NO:2792:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6771 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2792

1 tgggtcatctc agtttctttt ctacacttga ctgcaagatg aaactccttg tgctagctgt
61 gctgctcaca gtggccgcgc ccgacagcgc catcagccct cgggcccgtgt ggcagttccg
121 caaaatgatc aagtgcgtga tcccggggag tgacccttcc ttggaatata acaactacgg
181 ctgctactgt ggcttggggg gctcaggcac ccccggtgat gaactggaca agtgcgtcca
241 gacacatgac aactgctatg accaggccaa gaagctggac agctgtaaat tctgctgga
301 caaccgtagc acccacacct attcatactc gtgctctggc tcggcaatca cctgtagcag
361 caaaaacaaa gagtgtgagg ctttcatttg caactgcgac cgcaacgctg ccatctgctt
421 ttcaaaagct ccatataaca aggcacacaa gaacctggac accaagaagt attgtcagag
481 ttgaatatca cctctcaaaa gcacacctc tatctgcctc atctcacact gtactctcca
541 ataaagcacc ttgttgaaag aa
563 ctgcagaggg tcaatcactg ttcatgacag ccttgacctc cctggctcac gagatcctcc
623 catctcagcc tcttgagttg ctgggatcac aggtgcaatc caccaccaca cctggttaac
683 attttttttt tttagagatga ggtctctcta tgttgcccag gctgcacttc cttcttgctc

743	cccttattccc	agcgctccgac	tgaactgacg	gctttgcttt	ccccaccag	cccgtaagc
803	tgggctgagt	acaaagtgg	gggtatgagg	gtcaagattg	taagatctga	aaactccaga
863	aaccatccct	ttggttaaca	gttgctaagg	acaaatgc	aacatatttt	ccagtgatcc
923	catgctggca	aatcgtgag	gtcatctctg	caacagacag	attcaaggcc	agccccaaac
983	tcagccaaga	gcaaagcaa	cactccagcc	ttacttgggc	agggttgtgt	ggagactgac
1043	tataagacta	tacctgagac	tggtcatctc	agttcttttc	tcaccttgac	tgcaagatga
1103	aactccttgt	gctagctgtg	ctgctcacag	gtaggcaagt	ctccccggt	ccacccgcct
1163	ttctctccca	agtgaagctaa	gatctcactc	ctctggaatg	ggggccacac	acagcaaaaa
1223	gggatggcca	gccccgcagt	ctcaatttca	gggtcccagt	gggcttaagg	gctcctctat
1283	tgggggtccc	tcaagctgtg	cactttttca	acctgcaagt	ctgaactcag	attgctgtag
1343	ctaagaaaag	tgccctttat	tttctttttt	ccagacaggg	tcttgctcta	taacccaggc
1403	tggagttcag	tggcatgac	atagctcacc	acagcttcca	actcgtgggc	tcaagtgatc
1463	ctccacacct	actcaactaa	gtagttaggc	caatctccca	tttattttat	tttattttaa
1523	tttttatttt	tatttttact	tatttttatt	ttgagacggg	gctcactctg	tcggcaggct
1583	ggagtgcggt	gggtctgact	cagatcacta	caacctccat	ctcctggctc	aaataattct
1643	cttgctctag	ctctccaagt	agctggactt	gtagctctca	agtagctggc	acacaccacc
1703	atgcccagct	aattttttgt	gtgttttttt	tggtagagac	aggttttcac	catgttggcc
1763	aggttgggtg	acctcccttt	tagattctcc	tcactctgct	ctattcttcc	cctttctaaa
1823	tgagtatccc	agtttccctt	ctttacacat	ttattattat	tcttattatt	attgagacag
1883	agtcttgctt	tgtgcccaag	gctggagtac	agtggtgcga	ctcggctcca	ctgcaagctc
1943	cactgtctgg	gttccagcca	ttctcccgcc	tcagcctccc	cagtagctgg	gactaaagcg
2003	cctgcccaca	gcccccgcta	atttttttgt	atttttaata	aagacgggg	ttcatcgtgt
2063	tagccaggat	ggtctcgatc	tcatgacctt	gtgatccgcc	tgccctggcc	tcccaaatgc
2123	tgattacag	gcatgagcca	ccgtgcccg	ccttatcaca	tttattattt	attgtttttc
2183	ttctcccact	ggttgtaagg	tccatgaggt	tagagattat	tattattatt	attattattat
2243	tattattatt	tattattatt	attatatctg	ttcactgctg	tatctctagc	tcctaggaca
2303	gagcctggca	catagtaagt	gctcaataaa	tattcactgg	ataaacagt	cagatagttt
2363	aaaactatct	gacctaggga	ggctgaggca	ggagaatggc	gtgaacccgg	gaagcagagt
2423	ttgagtgag	ctgaaatcgt	gtcactgcac	tccaacctgt	cacacagagc	aagactccat
2483	ctcaaaaaaa	aaaaaaaaaa	tatcaggcct	agctgggtgg	gcaatgcctg	taatcctagc
2543	tgaggcggtg	gggtccccaga	agaagaaaga	gaagaaaaag	aagaagatat	atatatatat
2603	acacacacac	aaagatataa	actttatata	tataaagttt	tcattaaaaa	aaaaaaaaaa
2663	ctctaccac	tttcacttta	ccaggttcct	gggtccaaag	gtcttcagag	gaggcagctg
2723	gcaggggtca	gggaggcagc	gtgggacccg	agggcagcag	aaggcagtg	gtccccgggg
2783	tgctggcgca	ccgatttgaa	gtctggctat	gtctttctgc	agtgcccgcc	gccgacagcg
2843	gcatacgccc	tcgggcgcgt	tggcagttcc	gcaaaatgat	caagtgcgtg	atcccgggga
2903	gtgacccctt	cttggaatac	aacaactacg	gctgctactg	tggttggggg	ggctcaggca
2963	cccccggtga	tgaactggac	aagtaagtga	tcgccttcca	ggaaaattgg	agtgccctgc
3023	gggggcgggg	tggggcacca	gcgcaaggat	ctcacgagcg	atacaaaagg	gacttgcata
3083	tctgtctaa	ataacatatt	ttcactctt	gtcaaaataa	catatatgtt	ccaagaggac
3143	cctgtagcga	acgcaccccg	ttagagatgg	aaacattgac	cgacgtgcaa	aacagtgggc
3203	gatgtgtccc	tccagtggca	gaatgtagca	acattaaaca	tcacagcacc	tatccacgtg
3263	tcattttcta	gcagtgggtg	tcactgccc	ttctggaata	caggatttta	ctgtattctt
3323	gcaaccatgt	taaaaatcgc	tttcaggcca	ggcgcggtgg	ctcatgctg	taatcccgag
3383	actttgggag	gcccaggcgg	gcggatcact	tgaggtcagg	agttccgagc	cagcctggcc
3443	aacatgggtg	aacctgtctc	ctactaaaaa	atacaaaaaa	tagccggaca	tggtggcgag
3503	cgctgtgaac	cccagctact	tgggagactg	agttggaggt	ttcatgagcc	aaggtcgtgt
3563	cactgctgtc	cagcctgggt	aacagagcaa	ctctgtctca	aaaaaaaaaa	atgctttcaa
3623	taaataatat	ataaaaggac	ttatattttt	tcaagccata	ggatcatttc	tcttgaaagca
3683	tcttgggcga	gtcatcccca	ctgtgttctg	agagtgggca	ggtagagggt	gacctattgc
3743	tctgactcta	ctctatctc	agctgtccct	cccaatttcc	aggtgctgcc	agacacatga
3803	caactgctac	gaccaggcca	agaagctgga	cagctgtaaa	tttctgctgg	acaaccgcta
3863	caccacacac	tattcatact	cgtgctctgg	ctcggaatc	acctgtagca	gtaggtttat
3923	cccttctctg	accta				
3983	gcccactccc	accgcagct	ggaacctg	ggactacgac	gtccctcaaa	ccttgcttct
3998	aggagataaa	agaacatcc	agtcattggt	aaaaatgagc	tggttcagaa	ggccaaactg
4058	gccgagcagg	ctgagcgata	tgatgacatg	gcagcctgca	tgaagtctgt	aactgagcaa
4118	ggagctgaat	tatccaatga	ggagaggaa	cttctctcag	ttgcttataa	aaatgttgta
4178						

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4418 gccgctggtg atgacaagaa agggattgtc gatcagtcac aacaagcata ccaagaagct
4478 tttgaaatca gcaaaaagga aatgcaacca acacatccta tcagactggg tctggccctt
4538 aacttctctg tgttctatta tgagattctg aactccccag agaaagcctg ctctcttgca
4598 aagacagctt ttgatgaagc cattgctgaa cttgatacat taagtgaaga gtcatacaaa
4658 gacagcacgc taataatgca attactgaga gacaacttga cattgtggac atcggatacc
4718 caaggagacg aagctgaagc aggagaagga ggggaaaatt aaccggcctt ccaacttttg
4778 tctgcctcat tctaaaattt acacagtaga ccatittgtc tccatgctgt cccacaaata
4838 gttttttgtt tacgatttat gacaggttta tgttacttct atttgaattt ctatatttcc
4898 catgtggttt ttatgtttta tattagggga gttagagccag ttaacattta gggagttatc
4958 tgttttcatc ttgaggtggc caatatgggg atgtggaatt ttatacaag ttataagtgt
5018 ttggcatagt acttttggtt cattgtggct tcaaaagggc cagtgtaaaa ctgcttccat
5078 gtctaagcaa agaaaactgc ctacatactg gtttgtctg gcggggaata aaaggatca
5138 ttggttccag tcacaggtgt agtaattgtg ggtactttaa gggttgagc acttacaagg
5198 ctgtggtaga atcatacccc atggatacca catattaaac catgtatatc tgtggaatac
5258 tcaatgtgta cacctttgac tacagctgca gaagtgttcc tttagacaaa gttgtgacct
5318 attttactct ggataagggc agaaacgggt cacattccat tatttgtaaa gttacctgtc
5378 gtttagctttc attatttttg ctacactcat tttatttgta tttaaatgtt ttaggcaacc
5438 taagaacaaa tgtaaaagta aagatgcagg aaaaatgaat tgcttggtat tcattacttc
5498 atgtatatca agcacagcag taaaacaaaa acccatgtat ttaacttttt tttaggattt
5558 ttgcttttgt gatttttttt tttttttttt gatacttgcc taacatgcat gtgctgtaaa
5618 aatagttaac agggaaataa cttgagatga tggctagctt tgtttaatgt cttatgaaat
5678 tttcatgaac aatccaagca taattgttaa gaacacgtgt attaaattca tgtaatgga
5738 ataaaagttt tatgaatgga cttttcaact actttctcta cagcttttca tgtaaattag
5798 tcttggttct gaaacttctc taaaggaaat tgtacattct ttgaaattta ttccttattc
5858 cctcttgcca gctaattggc tcttaccag tttaaacaca aaatttatca taacaaaaat
5918 actactaata taactactgt ttccatgtcc catgatcccc tctcttctc cccacctga
5978 aaaaaatgag ttctattttt ttctgggaga gggggggatt gattagaaaa aaatgtagt
6038 tgttccattt aaaatttttg catatggcat tttctaactt aggaagccac aatgttcttg
6098 gccatcatg acattgggtg gcattaactg taagttttgt gcttccaaat cacttttttg
6158 tttttaagaa tttcttgata ctcttatagc ctgccttcaa ttttgatcct ttattcttcc
6218 tatttgtcag gtgcacaaga ttaccttctc gttttagcct tctgtcttgt caccacccat
6278 tcttacttgg tggccatgta cttggaaaaa ggccgcatga tcttcttggc tccactcagt
6338 gtctaaggca cctgtcttc tttgcttgca tcccacagac tatttccctc atcctattta
6398 ctgcagcaaa tctctcctta gttgatgaga ctgtgtttat ctccctttaa aacctacctt
6458 atcctgaatg gtctgtcatt gtctgccttt aaaatecttc ctctttcttc ctctcttatt
6518 ctctaataaa tgatggggct aagttatacc caaagctcac tttacaaaat atttctcag
6578 tactttgcag aaaaacacaa acaaaaatgc cattttaaaa aaggtgtatt ttttctttta
6638 gaatgtaagc tctcaagag cagggacaat gttttctgta tgttctattg tgcctagtag
6698 actgtaaatg ctcaataaat attgatgatg ggaggcagtg agtcttgatg ataagggtga
6758 gaaactgaaa tccc

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(2) INFORMATION FOR SEQ ID NO:2793:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 495 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2793

```

1 gctgtgcaac ctgcgcgcca tgcgcaacct ctatgcgatg caccgcggcg tgcagcgcca
61 cccgcgctcc tgcaccaggg actgtgcccga gccgcgcgcg gacgggaggg aagcgtccccc
121 tcagcccccgtg gaggagctgg atcacctcct gctgctggcg ctgatgaccg tgctcttcac
181 tatgtgttct ctgcccgtaa tttatcgcgc ttactatgga gcatttaagg atgtcaagga
241 gaaaaacagg acctctgaag aagcagaaga cctccgagcc ttgcgatttc tatctgtgat
301 ttcaattgtg gacccttggg tttttatcat ttccagatct ccagtatttc ggatattttt
361 tcacaagatt ttcattagac ctcttaggta caggagcccg tgcagcaatt ccactaacat
421 ggaatccagt ctgtgacagt gtttttcaact ctgtggtaag ctgaggaata tgtcacattt
481 tcagtcaaag aacca

```

(2) INFORMATION FOR SEQ ID NO:2794:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1216 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2794

```

1 gaattctggc tattttcttc ctgccgttcc gactcggcac cagagtctgt ctctactgag
61 aacgcagcgc gtcagggcgc agctcttcac tggcctgtct cgcgtctctc aatgccagcg
121 ccaggcgctc accctgcaga gcgtcccgcc tctcaaagag ggggtgtgacc cgcgagttta
181 gataggaggt tcctgccgtg gggaacaccc cgcgcctctc ggagcttttt ctgtggcgca
241 gcttctccgc ccgagccgcg cgcggagctg ccgggggctc cttagcaccg gggcgccggg
301 gccctcgccc ttccgcagcc ttactccag ccctctgtct ccgcacgcca tgaagtgcgc
361 gttctaccgc tgcagaaca ccacctctgt ggaaaaagge aactcggcgg tgatggcgcg
421 ggtgctcttc agcacgggcc tcctgggcaa cctgctggcc ctggggctgc tggcgcgctc
481 ggggctgggg tggtgctcgc ggctccact gcgcccgctg ccctcggtct tctacatgct
541 ggtgtgtggc ctgacgggtc ccgacttgtt gggcaagtgc ctctaagcc cgggtgtgct
601 ggtgcctac gtcagaacc ggagtctgcg ggtgcttgcc cccgattgg acaactcggt
661 gtgccaagcc ttccgcttct tcatgtcctt ctttgggctc tcctcgacac tgcaactcct
721 ggccatggca ctggagtgtt ggtctctcct agggcacctt ttctctacc gacggcacat
781 caccctgcgc ctggcgccac tgggtgcccc ggtggtagc gccttctccc tggctttctg
841 cgcgctacct ttcatgggct tcgggaagtt cgtgcagtac tgccccggca cctggtgctt
901 tatccagatg gtccacgagg agggctcgct gtcggtgctg gggtagctct tgctctactc
961 cagcctcatg gcgctgctgg tcctcgccac cgtgctgtgc aacctcggcg ccatgcgcaa
1021 cctctatgcg atgcaccggc ggtgcagcgc gcaccgcgc tcctgcacca gggactgtgc
1081 cgagccgcgc gcggacggga gggaagcgtc ccctcagccc ctggaggagc tggatcacct
1141 cctgctgctg gcgctgatga ccgtgctctt cactatgtgt tctctgcccg taattgtgag
1201 tccccgggcc ccgagg

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(2) INFORMATION FOR SEQ ID NO:2795:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2372 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2795

```

1 gggccgcgct cggcgcgctg ggtgcgggaa gggggctctg gatttcggtc cctccccctt
61 ttctctgag tctcggaacg ctccagctct cagacctctt tcctcccagg taaaggcccg
121 gagaggaggg cgcattctct ttccaggcac cccaccatgg gcaatgcctc caatgactcc
181 cagtctgagg actgcgagac gcgacagtgg cttccccag gcgaaagccc agccatcagc
241 tccgtcatgt tctcgccggg ggtgctgggg aacctcatag cactggcgct gctggcgcg
301 cgctggcggg gggacgtggg gtgcagcgcc ggccgcagga gctccctctc cttgttccac
361 gtgctggtga ccgagctggt gttaccgcac ctgctcggga cctgcctcat cagccagtg
421 gtactggctt cgtacgcgcg gaaccagacc ctggtggcac tggcgccgga gagccgcgcg
481 tgcacctact tcgctttcgc catgaccttc ttacgcctgg ccacgatgct catgctcttc
541 gccatggccc tggagcgcta cctctcgatc gggcaccctt acttctacca gcgcgcgctc
601 tggcctcccg ggggctggc cgtgctgcct gtcattctat cagtctccct gctcttctgc
661 tgcgtgcgcg tgctggacta tgggcagtac gtccagtact gcccgggac ctgggtcttc
721 atccggcacg ggcggaccgc ttacctgcag ctgtacgcca ccctgctgct gcttctcatt
781 gtctcgggtg tcgctgcaa cttcagtgtc attctcaacc tcatccgcat gcaccgccga
841 agccggagaa gccgctgcgg accttccctg ggcagtggcc gggggcgccc cggggcccg
901 aggagagggg aaagggtgtc catggcgagg gagacggacc acctcattct cctggctatc
961 atgaccatca ccttcgccgt ctgctccttg cctttcacga tttttgcata tatgaatgaa
1021 acctcttccc gaaaggaaaa atgggacctc caagctctta ggtttttatc aattaattca
1081 ataattgacc cttgggtctt tgccatcctt aggcctcctg ttctgagact aatgcgttca
1141 gtcctctggt gtcggatttc attaagaaca caagatgcaa cacaaacttc ctgttctaca
1201 cagtcatatg ccagtaaaaca ggcgtgacct tgaggtcagt agtttaaaag ttcttagtta
1261 tatagcatct ggaagatcat tttgaaattg ttccctggag aaatgaaaac agtgtgtaaa
1321 caaaatgaag ctgccctaata aaaaaggagt atacaacat ttaagctgtg gtcaaggcta
1381 cagatgtgct gacaaggcac ttcatgtaaa gtgtcagaag gagctacaaa acctaccttc
1441 aatgagcatg gtacttggcc tttggaggaa caatcggtg cattgaagat ccagctgcct
1501 attgatttaa gctttcctgt tgaatgacaa agtatgtggt tttgtaattt gtttgaaacc
1561 ccaaacagtg actgtacttt ctattttaat cttgctacta ccgttatata catatagtgt
1621 acagccagac cagattaaac ttcatatgta atctctagga agtcaatatg tggaaagcaac
1681 caagcctgct gtcttgtgat cacttagcga accctttatt tgaacaatga agttgaaaat
1741 cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt
1801 actcttacia gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa

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1861 ctgcagggtca agttgtcagg ttattttat ttataatgtcc atatgctaata agtgatcaag
 1921 aagacttttag gaatgggttct ctcaacaaga aataatagaa atgtctcaag gcagtttaatt
 1981 ctcatataata ctcttattat cctattttctg ggggaggatg tacgtggcca tgtatgaagc
 2041 caaatatttag gcttaaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt
 2101 ttaaagttga tattgggggcc atgagtaaaa tagattttat aagatgactg tgttgtagca
 2161 aaattcatct gtctatatatt tatttagggg aacatgggtt gactcatctt atatgggaaa
 2221 ccatgtagca gtgagtcata tcttaataata tttctaaatg tttggcatgt aaatgtaaac
 2281 tcagcatcaa aatatttcag tgaatttgca ctgtttaatc atagttactg tgtaaaccta
 2341 tctgaaatgt tacaaaaata aactataaaa ca

(2) INFORMATION FOR SEQ ID NO:2796:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1682 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2796

1 agagaggaag gctgggtccc ctcccggggc agtgagccct ggccgcccgc cgcccgcggt
 61 ccagcagcg gaggtagggc gggctgccc cccgcacccat ggggggcagc ccagccccag
 121 ccgcggtaaa cgccgacctc cgcccgccgc cgcccgcggt ctgccccctc ccgctgcggc
 181 tctctggacg ccacccccct ctcacctga agccaacatg aaggagaccc ggggtacggg
 241 aggggatgcc cctctctgca cccgcctcaa ccactcctac acaggcatgt gggcgcccca
 301 gcgttcggcc gagcgccggg gcaacctcac gcgccctcca gggctctggc aggtatggcg
 361 atcggtgtcc gtggccttcc cgatcacccat gctgtcact ggtttcgtgg gcaacgcact
 421 ggccatgctg ctctgtgccc gcagctaccg gcgccgggag agcaagcgca agaagtcctt
 481 cctgctgtgc atcggtggc tggcgctcac cgacctggtc gggcagcttc tcaccacccc
 541 ggtcgtcatc gtcgtgtacc tgtccaagca gcgttgggag cacatcgacc cgtcggggcg
 601 gctctgcacc tttttcgggc tgacctgac tgttttcggg ctctcctcgt tgttcacgcg
 661 cagcgccatg gccgtcgagc gggcgctggc catcaggggc ccgactgggt atgcgagcca
 721 catgaagacg cgtgccaccc gcgctgtgct gctcggcggt tggctggccg tgcctgcctt
 781 cgccctgctg ccggtgctgg gcgtgggcca gtacaccgtc cagtggcccg ggacgtgggtg
 841 cttcatcagc accgggagag ggggcaacgg gactagctct tcgcataact ggggcaacct
 901 tttcttcgcc tctgcctttg ccttcctggg gctcttggcg ctgacagtca ccttttctctg
 961 caacctggcc accattaagg ccctgggtgc ccgctgccc gccaaggcca cgccatctca
 1021 gtccagtgcc cagtggggcc gcatcacgac cgagacggcc attcagctta tggggatcat
 1081 gtgcgtgctg tcggtctgct ggtctccgct cctgataatg atgttgaaaa tgatcttcaa
 1141 tcagacatca gttgagcact gcaagacaca cacggagaag cagaaagaat gcaactctct
 1201 cttaatagct gttgccttgg cttcactgaa ccagatcttg gactccttggg tttacctgct
 1261 gtttaagaaa atccttcttc gaaagttttg ccaggtagca aatgctgtct ccagctgctc
 1321 taatgatgga cagaaaggcc agcctatctc attatctaata gaaataatac agacagaagc
 1381 atgaagaaaa aacttaact tgcatgtgca cagcttcttg taacaaatat cgctaacctt
 1441 tactgtgaat ttaggcatct ctggcatgcc actgtttatg cattgaagtg gaatttttgg
 1501 tataaagcta aatgggtctta gaagcataga aaatccctat gtgccaaaag tagtgaaaca
 1561 caaacaaggg aaaatatatt aataacagtc tagtgttttt gttgagctct ccattcgtag
 1621 ctgaatatgt gattaattat gtgatgaaaa ctttttttat aaatgatctt ggtctatttg
 1681 gg

(2) INFORMATION FOR SEQ ID NO:2797:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1870 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2797

1 ccggggccag tgagccctgg cgccgcccgc gcccggttcc cagcagcgga gtaggggcgg
 61 ggctgcccgc cgcacccatg gggcgagccc agccccagcc gcggtaaaac ccgacctccg
 121 ccgcccgcgc cgccgctgtc gccccctccc gctgcccgtc tctggagccc atccccctct
 181 cactctgaag ccaacatgaa ggagacccgg ggctacggag gggatgcccc cttctgcacc
 241 cgctcaaac actcctacac aggcattgtg gcgcccgagc gttccgcca ggcgcggggc
 301 aacctcacgc gccctccagg gtctggcgag gattgcggat cgggtgccgt ggccttcccg
 361 atcacctatg tgcctactgg tttcgtgggc aacgcactgg ccattgctgt cgtgtcgcgc
 421 agctaccggc gccgggagag caagcgcaag aagtccttcc tgctgtgcat cggctggctg
 481 gcgctcaccg acctgggtcg gcagcttctc accaccccg tgcctatcgt cgtgtacctg

541 tccaagcagc gttgggagca catcgacccg tggggggcgc tctgcacett tttcgggctg
601 accatgactg ttttcgggct ctcctcggtg ttcacgcca gcgccatggc cgtcgagcgg
661 gcgctggcca tcagggcgcc gcactggtat gcgagccaca tgaagacggc tggcaccgcc
721 gctgtgctgc tggcggtgtg gctggccgtg ctgccttcg cctgctgcc ggtgctgggc
781 gtgggccaagt acaccgtcca gtggcccggt acgtggtgct tcatcagcac cgggcgaggg
841 ggcaacggga ctagtcttc gcataactgg ggcaaccttt ttttcgctc tgcctttgcc
901 ttcctggggc tcttggcgct gacagtcacc ttttcctgca acctggccac cattaagggc
961 ctggtgtccc gctgcccggc caagggccag gcattctcagt ccagtggcca gtggggccgc
1021 atcacgaccg agacggccat tcagcttatg gggatcatgt gcgtgctgtc ggtctgctgg
1081 tctccgctcc tgataatgat gttgaaaatg atcttcaatc agacatcagt tgagcactgc
1141 aagacacaca cggagaagca gaaagaatgc aacttcttct taatagctgt tcgctgggt
1201 tcactgaacc agatcttggg tcttgggtt tacctgctgt taagaaagat ccttcttcga
1261 aagttttgcc agatcaggta ccacacaaac aactatgcat ccagctccac ctccttacc
1321 tgccagtgtt cctcaacctt gatgtggagc gaccttttg aaagataatg aaagaacgga
1381 gttggacatt ttattgcaat tctgcttcc ctgaatttgc atatttcttc ccactgaga
1441 aggataatta tataatttaa tttggattat tcttctattt ttatcttttt attttaatga
1501 ttgttttgtc agtaataccc atggagatca actttattat tataatccat gcctctgaat
1561 attagattgg tttcttggat gggattttga atatgcattt aagaagtgg gaagaatttc
1621 acagatgatg attggaggaa aagtgatgaa aagaaagacc tgtgttccag gagttttctc
1681 caacttcaaa cctttacgtg aatcttaacc aaagtggaca tctttacatt tcatgatagc
1741 ttgttttgc aatatgagtt tgaaaaatca gtataagctt atgatggtga aaagtcaaca
1801 tattgagagt gataattcaa ttaataggat atgaacttaa cgatataaaa gcaaatgagg
1861 gcaggagggg

(2) INFORMATION FOR SEQ ID NO:2798:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1682 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2798

1 agagaggaag gcgtggctcc ctcccgggcc agtgagccct ggccgcccgc cggccgcggt
61 cccagcagcg gactagggcg gcgctgcgc cccgcaacct ggggggcagc ccagcccccag
121 ccgcggtaaa cgccgacctc cgccgcccgc cgcgcgcgct ctgcccctc ccgctgcggc
181 tctctggacg ccaccccctc ctcacctcga agccaacatg aaggagaccg ggggctacgg
241 aggggatgcc ccttctgca cccgcctcaa ccactcctac acaggcatgt gggcgcccga
301 gcgttccgcc gaggcgcggg gcaacctcac gcgcctcca gggctctggc aggattgccc
361 atcgggtgtc gtggccttcc cgatcaccat gctgctcact ggttctgtg gcaacgcact
421 ggccatgctg cctgtgtcgc gcagctaccg gcgcggggag agcaagcgca agaagtcctt
481 cctgctgtgc atcggctggc tggcgtcac cgacctggtc gggcagcttc tcaccacccc
541 ggtcgtcatc gtcgtgtacc tgtccaagca gcgttgggag cacatcgacc cgtcggggcg
601 gctctgcacc ttttcgggc tgaccatgac tgttttcggg ctctcctcgt tgttcacgca
661 cagcgccatg gccgtcgagc gggcgctggc catcaggggc ccgactggt atgcgagcca
721 catgaagacg cgtgccaccg gcgctgtgct gctcggcgct tggctggccg tgcctgcctt
781 cgcctgctg ccggtgctgg gcgtgggcca gtacaccgtc cagtggcccg ggacgtgggtg
841 cttcatcagc accgggcgag ggggcaacgg gactagctct tcgcataact ggggcaacct
901 tttcttcgcc tctgcctttg ccttctcggg gctcttggcg ctgacagtca ccttttctg
961 caacctggcc accattaagg ccttgggtgc ccgctgcgg gccaaaggcca cggcatctca
1021 gtccagtgcc cagtggggcc gcatcacgac cgagacggcc attcagctta tggggatcat
1081 gtgcgtgctg tcggtctgct ggtctccgct cctgataatg atgttgaata tgatcttcaa
1141 tcagacatca gttgagcact gcaagacaca cacggagaag cagaagaat gcaacttctt
1201 cttaatagct gttcgcctgg cttcactgaa ccagatcttg gatccttggg tttacctgct
1261 gttaagaaaag atccttcttc gaaagttttg ccaggtagca aatgctgtct ccagctgctc
1321 taatgatgga cagaaggggc agcctatctc attatctaata gaaataatac agacagaagc
1381 atgaagaaa acacttaact tgcatgtgca cagcttctgg taacaaatat cgctaaacct
1441 tactgtgaat ttaggcatct ctggcatgcc actgtttatg cattgaagtg gaatttttgg
1501 tataaagcta aatggtctta gaagcataga aaatccctat gtgcaaaaag tagtgaaaca
1561 caaacaaggg aaaatatatt aataacagtc tagtgttttt gttgagctg ccattcgtag
1621 ctgaatatgt gattaattat gtgatgaaaa ctttttttat aaatgatctt ggtctatttg
1681 gg

(2) INFORMATION FOR SEQ ID NO:2799:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1379 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2799

```
1 agagaggaag gcggtgctcc ctcccgggcc agtgagccct ggcgcgcgcg cggccgcggt
61 cccagcagcg gactagggcg gcgctgctgc cccgcacccat ggggggcagc ccagccccag
121 ccgcggtaaa cgccgacctc cgccgcgcgc cgcgcgcgcg ctgccccctc ccgctgcggc
181 tctctggacg ccatccccctc ctacacctga agccaacatg aaggagaccg ggggctacgg
241 aggggatgcc cccttctgca cccgcctcaa ccactcctac acaggcatgt gggcgcccga
301 gcggtccgcc gaggcgcggg gcaacctcac gcgcctcca gggctctggc aggattgcgg
361 atcgggtgct gtggccttcc cgatcacccat gctgctcact ggtttcgtgg gcaacgcact
421 ggccatgctg ctgctgctgc gcagctaccg gcgcgcggag agcaagcgca agaagtcctt
481 cctgctgtgc atcggctggc tggcgctcac cgacctggtc gggcagcttc tcaccacccc
541 ggtcgtcatc gtcgtgtacc tgtccaagca gcgttgggag cacatcgacc cgtcggggcg
601 gctctgcacc ttttctgggc tgacctgac tgtttctggg ctctcctcgt tgttcctcgc
661 cagcgccatg gccgtcgagc gggcgctggc catcagggcg ccgcactggt atcgagcca
721 catgaagacg cgtgccaccc gcgctgtgct gctcggcggtg tggctggcgg tgctcgcctt
781 cgccctgctg ccggtgctgg gcgtgggcca gtacaccgtc cagtggcccg ggacgtgggtg
841 cttcatcagc accgggcgag ggggcaacgg gactagctct tcgcataact ggggcaacct
901 tttctctgcc tctgcctttg ccttcctggg gctcttggcg ctgacagtca ccttttctg
961 caacctggcc accattaagg ccctggtgtc ccgctgcccg gccaaaggcca cggcatctca
1021 gtccagtgcc cagtggggcc gcacacgac cgagacggcc attcagctta tggggatcat
1081 gtgcgtgctg tcggtctgct ggtctcgcct cctgataatg atgttgaaaa tgatcttcaa
1141 tcagacatca gttgagcact gcaagacaca cacggagaag cagaaagaat gcaacttctt
1201 cttaatagct gttcgcttgg cttcactgaa ccagatcttg gatccttggg tttacctgct
1261 gttaagaaag atccttcttc gaaagttttg ccaggaggaa ttttggggaa attaaaacct
1321 gcctttctgc caggatcaca tcaactggaag ctccatgact ctcttttctg aaaagaaaa
```

(2) INFORMATION FOR SEQ ID NO:2800:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2494 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2800

```
1 gtgcgcggag gggacgagcg gctggaccac agccggcgcc cgatcaggat ctccgcgctg
61 ggatcgggtg aacttgaggc agcggcggcg cggggcgcca tggcacaccg agcggctccg
121 tcttctgctc ctacagagagc ccgctggcg gcctgggatg acaagatgtc tggactgcaa
181 tcttcacacg ttttgagagg gagatgactt gactgggttg cttttatctc cacaacaatg
241 tccatgaaca attccaaaca gctagtgtct cctgcagctg cgcttcttcc aaacacaccc
301 tgccagacgg aaaaccggct ttcgctattt ttttcagtaa tcttcatgac agtgggaatc
361 ttgtcaaaaa gccttgccat cgccattctc atgaaggcat atcagagatt tagacagaa
421 tccaaggcat cgtttctgct tttggccagc ggcttggtta tcaactgatt ctttggccat
481 ctcatcaatg gagccatagc agtatttcta tatgcttctg ataaagaatg gatccgcttt
541 gaccaatcaa atgtcctttg cagtattttt ggtatctgca tgggtgttcc tggctctgtc
601 ccacttcttc taggcagtgt gatggccatt gagcgggtga ttggagtcac aaaaccaata
661 tttcattcta cgaattttac atccaaacat gtgaaatga tgttaagtgg tgtgtgcttg
721 tttgctgttt tcatagcttt gctgcccac cttggacatc gagactataa aattcaggcg
781 tcgaggacct ggtgtttcta caacacagaa gacatcaaa actgggaaga tagattttat
841 cttctacttt tttcttttct ggggctctta gcccttgggt tttcattgtt gtgcaatgca
901 atcacaggaa ttacactttt aagagttaaa tttaaaagtc agcagcacag acaaggcaga
961 tctcatcatt tggaaatggt aatccagctc ctggcgataa tgtgtgtctc ctgtatttgt
1021 tggagcccat tttctggttac aatggccaac attggaataa atggaaatca ttctctggaa
1081 acctgtgaaa caacactttt tgctctccga atggcaacat ggaatcaaat cttagatcct
1141 tgggtatata ttcttctacg aaaggctgtc cttagaatc tctataagct tggcagtcac
1201 tgctgtggag tgcatgtcat cagcttacct atttgggagc ttagttccat taaaaattcc
1261 ttaaagggtg ctgctatttc tgagtcacca gttgcagaga aatcagcaag cacctagctt
1321 aataggacag taaatctgtg tggggctaga acaaaaatta agacatgttt ggcaatattt
1381 cagttagtta aatacctgta gcctaactgg aaaattcagg cttcatcatg tagtttgaag
1441 atactattgt cagattcagg ttttgaaatt tgtcaataa acaggataac tgtacatttt
1501 caacttgttt ttgccaatgg gaggtagaca caataaaata atgccatggg agtcacactg
```

1561 aaagcaattt tgagcttatt tgtcttattt atgctttgag tgaatcatct gttgaggctt
 1621 aatgcctcta cttggcctat ttgccagaga acatcttaac gcagcctgca tagtgaaatg
 1681 gttatttttga gatcacgcgt ctgtagctaa cccttataaa ctaggctcag taaaataaag
 1741 cactcttatt ttttgatctg gcctattttg cccctcattg tgtagcctca attaacacat
 1801 gcatgggtcat gacacccaga attcatgatg gtttggtata acaacctctg catattccag
 1861 gtctggcaga cagggtgcct gaccctgcaa tcctatctag aatggggcca ttcttgtcac
 1921 atttgacaaa taggactgcc tacatttatt attatgaagg tcgattgttg ttggaagtgt
 1981 tttttcatgt catagattag caattttcaa ataattattt tttctctgaa aattttgtgt
 2041 gtgattgcac aataaataat ttttagagaa acaaaggctc tttctcagca cattgatggg
 2101 caactagaat tacagcagtt tcaaactcta ccatggataa tgcaaacaaa ccgaagctac
 2161 atgccaatga taggtgcaaa gaatattggc aaaagggtgct ttaccttgag ccattatttg
 2221 tgtcagagaa caaaagaaac agaataata tataaattca aagactatct gcagtagtg
 2281 tgtttcttct ttacacacat atacacacag acatcagaaa attctgttga gacgaggttc
 2341 attaaatttg taagatggca tattctaaag cctgtgctac cagtactaag aggggaagac
 2401 tggcaatttg ccaagcactt ggggattatt ataacaatta actaggagat caagagataa
 2461 taatctctcc ccaaatttcc caataataat tgag

(2) INFORMATION FOR SEQ ID NO:2801:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1417 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2801

1 ggcacagacg cacgggacag gagagcctgg gcaagactgg agagcccaga cctgggatgg
 61 cggattcgtg caggaacctc acctacgtgc ggggctcggg ggggccggcc accagcaccc
 121 tgatgttctg ggcgggtgtg gtgggcaacg ggctggccct gggcatcctg agcgcacggc
 181 gaccggcgcg cccctcggcc ttccgggtgc tggtcaccgg actggcgggc accgacctgc
 241 tgggcaccag cttcttgagc ccggccgtgt tcgtggccta tgcgcgcaac agctccctgc
 301 tgggcctggc ccgaggcgcc cccgccctgt gcgatgcctt cgccttcgcc atgaccttct
 361 tcggcctggc gtccatgctc atctctttg ccatggccgt ggagcgctgc ctggcgctga
 421 gccaccccta cctctacgcg cagctggacg ggccccctg cgcgcgctg gcgctgccag
 481 ccctctacgc cttctgctc ctcttctgcg cgtgcccct gctgggctg ggccaacacc
 541 agcagtaact ccccggcagc tgggtcttcc tccgcatgcg ctgggcccag ccggggcgcg
 601 ccgcttctc gctggcctac gccggcctgg tggccctgct ggtggctgcc atcttctct
 661 gcaacggctc ggtcacctc agcctctgcc gcattgtacc ccagcagaag cgcaccagg
 721 gctctctggg tccacggcgg cgcaccggag aggacgaggt ggaccacctg atcctgctgg
 781 ccctcatgac agtggtcatg gccgtgtgct ccctgcctct cagatccgc tgcctcacc
 841 aggcgtgtcg ccctgacagc agcagtgaga tgggggacct ccttgccctc cgcttctacg
 901 ccttcaaccc catcctggac cctgggtctc tcctctttt ccgaaggct gcttctcagc
 961 gactcaagct ctgggtctgc tgcctgtgcc tcgggcctgc ccacggagac tcgcagacac
 1021 ccctttccca gctgcctcc gggaggaggg acccaagggc cccctctgct cctgtgggaa
 1081 aggaggggag ctgcgtgctt ttgtcggctt ggggcgaggg gcagggtggg cccttgccct
 1141 ccacacagca gtccagcgcc agcgccgtgg gaacgtcgtc caaagcagaa gccagcgtcg
 1201 cctgctccct ctgctgacat ttcaagctga ccctgtgata tctgcccgtg cttcgggcga
 1261 caggagccag aaaatcaggg acatggctga tggctgcgga tgcctgaacc ttggccccc
 1321 aactctgggg ccgatcagct gctgtttctc tgcggcaggg cagtcgctgc tggctctggg
 1381 aagagagtga gggacagagg aaacgtttat cctggag

(2) INFORMATION FOR SEQ ID NO:2802:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14507 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2802

1 gctgtgcaac ctgcggcgcca tgcgcaacct ctatgcgatg caccggcggc tgcagcgcca
 61 cccgcgctcc tgcaccaggg actgtgccga gccgcgcgcg gacgggaggg aagcgtcccc
 121 tcagcccctg gaggagctgg atcacctcct gctgctggcg ctgatgaccg tgccttcac
 181 tatgtgttct ctgcccgtaa ttatcgcgc ttactatgga gcatttaagg atgtcaagga
 241 gaaaaacagg acctctgaag aagcagaaga cctccgagcc ttgcgatttc tatctgtgat
 301 ttcaattgtg gacccttggg tttttatcat ttccagatct ccagtatttc ggatattttt
 361 tcacaagatt ttcattagac ctcttaggta caggagccgg tgcagcaatt ccactaacat

421 ggaatccagt ctgtgacagt gtttttact ctgtggtaag ctgaggaata tgtcacattt
 481 tcagtcaaaag aacca
 496 gaattcttggc tattttctc ctgccgttcc gactcggcac cagagtctgt ctctactgag
 556 aacgcagcgc gtcagggcgc agctcttcac tggcctgtct cgcgtctctc aatgccagcg
 616 ccagcgcctc accctgcaga gcgtcccgcc tctcaaagag ggggtgtgacc cgcgagttta
 676 gataggaggt tctgtccgtg gggaacaccc cgcgcgccctc ggagcttttt ctgtggcgca
 736 gcttctccgc ccgagccgcg cgcggagctg ccgggggctc cttagcaccg gggcgccggg
 796 gccctcgccc ttccgcagcc ttactccag ccctctgctc ccgcacgcca tgaagtgcgc
 856 gttctaccgc tggcagaaca ccacctctgt ggaaaaagcg aactcggcgg tgatggcgcg
 916 ggtgctcttc agcaccggcc tctgggcaa cctgctggcc ctggggctgc tggcgcgctc
 976 ggggctgggg tgggtgctgc ggcgtccact gcgcccgtg ccctcggtct tctacatgct
 1036 ggtgtgtggc ctgacggta ccgacttctg gggcaagtgc ctctaagcc cgggtgtgct
 1096 ggctgcctac gctcagaacc ggaagtctgc ggtgcttgcg ccgcattgg acaactcggt
 1156 gtgccaagcc ttgccttct tcatgtcctt ctttgggctc tctctgacac tgcaactcct
 1216 ggcatggca ctggagtgt ggctctccct agggcaccct ttcttctacc gacggcacat
 1276 caccctgcgc ctggggcgac tgggtggccc ggtggtgagc gccttctccc tggctttctg
 1336 cgcgtacct ttcatgggt tgggaagtt cgtgcagtac tgcccggca cctggtgctt
 1396 tatccagatg gtccacgagc agggctcgtc gtgggtgctg gggtaactct tgctctatc
 1456 cagcctcatg gcgtgctgg tctcggccac cgtgctgtgc aacctcggcg ccatgcgcaa
 1516 cctctatgcg atgcaccggc ggctgcagcg gcacccgcgc tctgcacca gggactgtgc
 1576 cgagccgcgc cgggacggga gggaagcgct ccctcagccc ctggaggagc tggatcacct
 1636 cctgctgctg gcctgatga ccgtgctctt cactatgtgt tctctgccc taattgtgag
 1696 tcccggggcc ccgagg
 1712 gggcgccgt cggcgcgctg ggtgcgggaa gggggctctg gatttcggtc cctccccttt
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 121 gagaggagg cgcactctct ttccaggcac ccacccatgg gcaatgcctc caatgactcc
 181 cagtctgagg actgcgagac gcgacagtgg cttcccacag gcgaaagccc agccatcagc
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 301 cgtggcggg gggacgtgg gtgcagccc ggcgcgagga gctccctctc cttgttccac
 361 gtgtggtga ccgagctggt gttcaccgac ctgctcggga cctgcctcat cagcccagtg
 421 gtactggctt cgtacgcgcg gaaccagacc ctggtggcac tggcgccgga gaggcgcg
 481 tgcacctact tgcctttcgc catgaccttc ttcagcctgg ccacgatgct catgctcttc
 541 gccatggccc tggagcgcta cctctcgatc gggcaccctt acttctacca gcgcgcgctc
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 721 atccggcacg gcggaccgc ttacctgcag ctgtacgcca cctgctgct gcttctcatt
 781 gtctcgggtc tgcctgcaa cttcagtgtc attctcaacc tcatccgat gcaccgcca
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 901 aggagagggg aaagggtgtc catggcggag gagacggacc acctcattct cctggctatc
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 1081 ataattgacc cttgggtctt tgccatcctt aggcctcctg ttctgagact aatgcgttca
 1141 gtctctgtt gtcgatttc attaagaaca caagatgcaa cacaacttc ctgttctaca
 1201 cagtcatatg ccagtaaaaca ggctgacctt tgaggtcagt agtttaaaag ttcttagtta
 1261 tatagcatct ggaagatcat ttgaaattg ttccctggag aaatgaaaac agtgtgtaaa
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 1381 cagatgtgct gacaaggcac ttcatgtaaa gtgtcagaag gagctacaaa acctaccctc
 1441 aatgagcatg gtacttggcc tttggaggaa caatcgctg cattgaagat ccagctgcct
 1501 attgatttaa gctttctctg tgaatgaaa agtatgtggt tttgtaattt gtttgaacc
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 1681 caagcctgct gtcttgtgat cacttagcga accctttatt tgaacaatga agttgaaaat
 1741 cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt
 1801 actcttacaa gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa
 1861 ctgcaggtoa agttgtcagg ttatttattt tataatgtcc atatgcta atgtatcaag
 1921 aagactttag gaatggttct ctcaacaaga aataatagaa atgtctcaag cgagttaatt
 1981 ctcatataa ctcttattat cctatttctg ggggaggatg tacgtggcca tgtatgaagc
 2041 caaatattag gcttaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt
 2101 ttaaagttag tattggggcc atgagtaaaa tagattttat aagatgactg tgtgttacca
 2161 aaattcatct gtctatattt tatttagggg aacatggttt gactcatctt atatgggaaa
 2221 ccatgtagca gtgagtcata tcttaataa tttctaaatg tttggcatgt aaatgtaaac
 2281 tcagcatcaa aatatttcag tgaatttgca ctgtttaatc atagtactg tgtaaactca

1 agagaggaag gcgtggctcc ctcccgggcc agtgagccct ggcgcgcgcg cggccgcggt
61 cccagcagcg gactagggcg gcggtgcgc cccgcaccat ggggggcagc ccagcccag
121 ccgcggtaaa cgcgcacctc cgcgcgcgcg cgcgcgcgct ctgccccctc ccgctgcggc
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241 aggggatgcc cccttctgca cccgcctcaa ccactcctac acaggcatgt gggcgcccga
301 gcgttcgcgc gaggcgcggg gcaacctcac gcgcctcca gggctctggcg aggattgcgg
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721 catgaagacg cgtgccaccc gcgtgtgct gctcggcggt tggctggcg tgcctgcctt
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841 cttcatcagc accgggagc ggggcaacgg gactagctct tcgcataact ggggcaacct
901 tttcttcgcc tctgcctttg cttccttggg gctcttggcg ctgacagtca ctttttctg
961 caacctggcc accattaagg cctggtgtc ccgctgcgcg gccaaaggcca cggcatctca
1021 gtccagtgcc cagtggggcc gcatcacgac cgagacggcc attcagctta tggggatcat
1081 gtgcgtgctg tcggtctgct ggtctccgct cctgataatg atgttgaaaa tgatcttcaa
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1201 cttaatagct gttcgctgg cttcactgaa ccagatcttg gatccttggg tttacctgct
1261 gtttaagaaag atccttcttc gaaagttttg ccaggtagca aatgctgtct ccagctgctc
1321 taatgatgga cagaaaggcc agcctatctc attatctaata gaaataatac agacagaagc
1381 atgaagaaa aacttaact tgcattgtca cagcttcttg taacaaatat cgctaaacct
1441 tactgtgaat ttaggcatct ctggcatgcc actgtttatg cattgaagtg gaatttttgg
1501 tataaagcta aatggtctta gaagcataga aaatccctat gtgccaaaag tagtgaaaaa
1561 caaacaaaag aaaatatatt aataacagtc tagtggtttt gttgagctcg ccattcgtag
1621 ctgaatatgt gattaattat gtgatgaaaa ctttttttat aaatgatctt ggtctattgg
1681 gg

1 agagaggaag gcgtggctcc ctcccgggcc agtgagccct ggcgcgcgcg cggccgcggt
61 cccagcagcg gactagggcg gcggtgcgc cccgcaccat ggggggcagc ccagcccag
121 ccgcggtaaa cgcgcacctc cgcgcgcgcg cgcgcgcgct ctgccccctc ccgctgcggc
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241 aggggatgcc cccttctgca cccgcctcaa ccactcctac acaggcatgt gggcgcccga
301 gcgttcgcgc gaggcgcggg gcaacctcac gcgcctcca gggctctggcg aggattgcgg
361 atcgggtgtc gtggccttcc ccatcaccat gctgctcact ggtttcgtgg gcaacgcact
421 ggccatgctg ctcggtgcgc gcatctaccg gcgcgggag agcaagcgca agaagtcctt
481 cctgctgtgc atcggtggc tggcgtcac cgacctggtc gggcagcttc tcaccacccc
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601 gctctgcacc tttttcgggc tgaccatgac tgttttcggg ctctcctcgt tgttcacgc
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721 catgaagacg cgtgccaccc gcgtgtgct gctcggcggt tggctggcg tgcctgcctt
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841 cttcatcagc accgggagc ggggcaacgg gactagctct tcgcataact ggggcaacct
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1021 gtccagtgcc cagtggggcc gcatcacgac cgagacggcc attcagctta tggggatcat
1081 gtgcgtgctg tcggtctgct ggtctccgct cctgataatg atgttgaaaa tgatcttcaa
1141 tcagacatca gttgagcact gcaagacaca caggagaaag cagaaagaat gcaacttctt
1201 cttaatagct gttcgctgg cttcactgaa ccagatcttg gatccttggg tttacctgct
1261 gtttaagaaag atccttcttc gaaagttttg ccaggaggaa ttttggggaa attaaaaacct
1321 gcctttctgc caggatcaca tcatggaag ctccatgact ctctttttgt aaaagaaaa
1 gtgcgcggag gggacgagcg gctggaccac agcgcgcgcg ccatcaggat ctccgcgctg
61 ggtcgggtgg aacttgagcg agcggcgcg cggggcgcca tggcacaccg agcggctccg
121 tcttctgctc ctacagagc cgggtggtgg ccttgggatg acaagatgtc tggactgcaa
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241 tccatgaaca attccaaaca gctagtgtct cctgcagctg cgcttcttcc aaacacaacc
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361 ttgtcaaaac gccttgccat cgccattctc atgaaggcat atcagagatt tagacagaag
421 tccaaggcat cgtttctgct tttggccagc ggcctggtaa tcaatgattt ctttggccat
481 ctcatcaatg gagccatagc agtatttcta tatgcttctg ataaagaatg gatccgcttt
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1 ggcacagacg cacgggacag gagagcctgg gcaagactgg agagcccaga cctgggatgg
61 cggattctgt caggaacctc acctacgtgc ggggtctcgt ggggcggcc accagcacc
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14291 cctgtctcct ctgctgacat ttcaagctga ccctgtgatc tctgccctgt ctccggcgga
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14411 aactctgggg ccgatcagct gctgtttctc tgcggcaggg cagtcgctgc tggctctggg
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(2) INFORMATION FOR SEQ ID NO:2803:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2588 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2803

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1  gctttctcct agggactgtg aggggcgctt ctgacttttg acttgagcac tgcctgggac
61 ctgtgctgag agagcgctag catgtctcag tggaaatcaag tccaacagtt agaaatcaag
121 tttttggagc aggtggatca attctatgat gacaactttc ccatggaat tgcgcatctg
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301 gagaaaaaacc tactcttgat acacaatcta aaaagaatta ggaaggctct tcagggaaaa
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1201 agatttgtac tttgtggaac taatgtcaaa gccatgtcta ttgaagaatc ttccaatggg
1261 agtctctcag tagaatttgc acatttgcaa ccaaaggaaa tgaagtccag tgctggagg
1321 aaaggaaatg agggctgtca catggtgact gaagaacttc attccataac gtttgaaca
1381 cagatctgcc tctatggcct gaccatagat ttggagacca gctcattgcc tgtggtgatg
1441 atttccaatg tcagtcagtt acctaattgt tgggcatcca tcatttggtg caacgtgtca
1501 accaacgatt cccagaactt ggttttcttt aataatcctc cacctgccac attgagtcaa
1561 ctactggagg tgatgagctg gcagttttca tcgtacgttg gtcgtggtct taactcagat
1621 caactccata tgctggcaga gaagcttaca gtccaatcta gctacagtga tggtcacctc
1681 acctgggcca agttctgcaa ggaacattta cctggtaaat catttacctt ttggacattg
1741 cttgaagcaa tttggatct aattaagaaa cacattcttc ccctttggat tgatgggtat
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1861 acctttttat taagattcag tgaagcccat ctcgaggaaa taactttcac ctgggtggac
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2221 ccacagacc ttcttcccat gtctccaagt gtgtatgcgg tgttgagaga aaacctgagt
2281 cccacaacaa ttgaaactgc aatgaagtct ccttattctg ctgaatgaca ggataaacctc
2341 tgacgcacca agaaaggaa ccaatgaaaa agtttaaaga ctgttctttg cccaataacc
2401 acattttatt tcttcagctt tgtaaatacc aggttctagg aaatgtttga catctgaagc
2461 tctcttcaca ctcccggtgc actcctcaat tgggagtgtt gtgactgaaa tgcttgaaac
2521 caagctttca gataaacttg caagataaga caactttaag aaaccagtgt taataacaat
2581 attaacag

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(2) INFORMATION FOR SEQ ID NO:2804:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2588 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2804

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121 tttttggagc aggtggatca attctatgat gacaactttc ccatggaat tgcgcatctg
181 ttggcccaat ggattgaaaa tcaagactgg gaggcagctt ctaacaatga aaccatggca
241 acgattcttc ttcaaaactt gttaatacaa ctggatgaac agttaggtcg tgtttccaaa
301 gagaaaaaacc tactcttgat acacaatcta aaaagaatta ggaaggctct tcagggaaaa
361 tttcatggaa atccaatgca tgtagctgtg gttatttcaa actgtttaag ggaagagagg
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481 tcttcagttt cagaaagaca gaggaatgtg gagcacaaaag tggctgccat taaaaacagt
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601 aggtataaaa caattcagac aatggatcag agtgacaaga atagtgccat ggtgaatcag
661 gaagttttga cactgcagga aatgcttaac agcctcgatt tcaagagaaa ggaggtcttc
721 agtaaaatga cccaaatcat ccatgagaca gacctgttaa tgaacacccat gctcatagaa
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1441 atttccaatg tcagtcagtt acctaattgt tgggcatcca tcatttggtg caacgtgtca
1501 accaagcatt cccagaactt ggttttcttt aataatcttc cacctgccac attgagtcaa
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1621 caactccata tgctggcaga gaagcttaca gtccaatcta gctacagtga tggcacctc
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2401 acattttatt tcttcagctt tgtaaatacc aggttctagg aaatgtttga catctgaagc
2461 tctcttcaca ctcccggtgc actcctcaat tgggagtggt gtgactgaaa tgcttgaaac
2521 caaagcttca gataaacttg caagataaga caactttaag aaaccagtgt taataacaat
2581 attaacag

(2) INFORMATION FOR SEQ ID NO:2805:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3046 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2805

1 atcttatttt tctttttggt ggtggtggtg gaagggggga ggtgctagca gggccagcct
61 tgaactcgct ggacagagct acagacctat ggggcctgga agtgcccgtc gagaaaggga
121 gaagacagca gagggttgct cgaggcaacc tccaagtccc agatcatgtc tctgtggggt
181 ctgggtctcca agatgcccc agaaaaagtg cagcggtctc atgtcgactt tccccaacac
241 ctgcggcata ttctgggtga ctggctggag agccagccct gggagttcct ggtcggctcc
301 gacgccttct gctgcaactt ggctagtgcc ctactttcag aactgtcca gcaccttcag
361 gcctcggttg gagagcagg ggaggggagc accatcttgc aacacatcag cacccttgag
421 agcatatata agagggaccc cctgaagctg gtggccactt tcagacaaat acttcaagga
481 gagaaaaaag ctgttatgga acagttccgc cacttgccaa tgcttttcca ctggaagcag
541 gaagaactca agtttaagac aggcttgagg aggtgcagc accgagtagg ggagatccac
601 ctctctcgag aagccctgca gaagggggct gaggttgccc aagtgtctct gcacagcttg
661 atagaaactc ctgctaattg gactgggcca agtgaggccc tggccatgct actgcaggag
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1081 gccaaagcctc cgctggtcag gggcgacatg gtgacagaga agcaggcgcg ggagctgagt
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1201 cccttgagga acagcattcc tgggaactgc tgctctgccc tgttcaagaa cctgtctctc
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1321 gtgctcttct ctgccagctt cacacttggc cccggcaaac tccccatcca gctccaggcc
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1441 atctgtgtgg acaatgcctt ctctgagatg gaccgctgac cctttgtggt ggctgagcgg
1501 gtgcccctgg agaagatgtg tgaaactctg aacctgaagt tcatggctga ggtggggacc
1561 aaccgggggc tgctcccaga gcaactctc ttcctggccc agaagatctt caatgacaac
1621 agcctcagta tggaggcctt ccagcaccgt tctgtgtcct ggtcgcagtt caacaaggag
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1741 aaacgctgtc tccggagcta ctggtctgac cggctgatca ttggcttcat cagcaaacag
1801 tacgttacta gccttcttct caatgagccc gacggaacct ttctcctccg cttcagcgac
1861 tcagagattg ggggcatcac cattgcccct gtcactccgg gccaggatgg ctctccacag
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2101 atcaagatga ccgtggaaa ggaccaacca ctctctaccc cagagctcca gatgcctacc
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2461 accatggtgg aagacagctg cctgagccag ccagtgcagc cgtttcctca gggcacttgg
2521 attggtgaag acatattccc tctctgtctg cctccactg aacaggacct cactaagctt
2581 ctcttgagg ggcaagggga gtcgggggga gggctccttg gggcacagcc cctcctgcag
2641 cctccctact atgggcaatc tgggatctca atgtcccaca tggacctaa gggcaacccc
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2881 ccaatccact ccttcttctc tatcattccc ctgcccacct cctccagca ctgactggaa
2941 ggggaagtta cgtctctgaga cagcccccaa catgcctgca cctgcagcgc gcacacgcac
3001 gcacacacac atacagagct ctctgagggt gatggggctg agcagg

(2) INFORMATION FOR SEQ ID NO:2806:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8222 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2806

1 gctttctcct agggactgtg aggggcgctt ctgacttttg acttgagcac tgcctgggac
61 ctgtgctgag agagcgctag catgtctcag tggaaatcaag tccaacagtt agaaatcaag
121 tttttggagc aggtggatca attctatgat gacaactttc ccatggaaat tcggcatctg
181 ttggcccaat ggattgaaaa tcaagactgg gaggcagctt ctaacaatga aaccatggca
241 acgattcttc ttcaaaactt gtaatacaa ctggatgaac agttaggctg tgtttccaaa
301 gagaaaaacc tactcttgat acacaatcta aaaagaatta ggaaggctct tcagggaaaa
361 tttcatggaa atccaatgca ttagctgtg gttatttcaa actgtttaag ggaagagagg
421 agaattattg ctgcagccaa catgcctgtc caggggctc tagagaaatc cttacaaagt
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(2) INFORMATION FOR SEQ ID NO:2807:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11046 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2807

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 8461 aatgggactg ggccaagtga ggtgagtaat gggctgacag gtggagacct tggtaaaagt
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 10561 agccctgccc caatctggga ccccgagtcc tctccaatg ccacgcacaa gggccctgga
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 10861 tattatcagc ccatctttat agcatgagga cattgagaca gagagtttaa gtatgttgc
 10921 ccagtcaccc agctaagtgt tggagctggt atctgaaacc tgggaagtct gttccatagc
 10981 gattatagta accacttctc tacgggtgag ccctgattga gcttcaaac gcatttaata

11041 acatgg

(2) INFORMATION FOR SEQ ID NO:2808:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 690 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2808

```
1 ggaaagaaag aaagaaaaga aaccctgtcc tcaccctact tcaggccctg tctctgcccc
61 tgggtggcat cgtccatggc aaccaagaca acaatgccaa agccactatc ctgtggggaca
121 atgccttctc tgagatgggt aggaaagtcc ttggtagttg gagggaaacag ggtgcagggt
181 gggttctaac atgggcagtg gtgcaggcct gctgatgggg tggtagggcat gtcggatggg
241 tgtgacctta acacttcttc atgggcctgc ttctgtgctt ctgacctctt ttcacccag
301 tcttaacaac taccaggcca cagcactgta acctagaaaa aacagcatgt ttgtgagcga
361 taccaggggc tgtggagggg taggccacag gcatgtggga cggatgaagg ccggcccgag
421 gaataacaag acggtagcct gcagtgcctc ctctctcccc ctctctcccc ggaccgcgtg
481 ccctttgtgg tggctgagcg ggtgccctgg gagaagatgt gtgaaactct gaacctgaag
541 ttcattggctg aggtggggac caaccggggg ctgctcccag agcacttctt cttcctggcc
601 cagaagatct tcaatgacaa cagcctcagt atggaggcct tcacgacagg tctctgtgtcc
661 tggctgcagt tcaacaaggt tcagttctcc
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(2) INFORMATION FOR SEQ ID NO:2809:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 666 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2809

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1 ggcggccgca gctctaatac gactcactat agggcgctcg ctcgatcata ccaactgcact
61 caagcctggg tgacagagca agactctgtc tcaaaaaaaaa aaaaaaaaaa aggccaggca
121 tgggtggtca tgcctgtaat ccagcactt tgggaggccg agacggatag atcacctgag
181 gtcaggagtt cgagaccagc ctggccaaca tggcaaaacc ccgtctctac taaaaacaaa
241 aaaatagcca ggtatggtcg ttgcgtctgt aatcccagct actcggctga ggcaggaggt
301 gaacccagga ggtaaaggct gcagggggag atgaaacccat tgcactccag cctgggcaag
361 actctgtatc aaaaaaaaaa aaaaaaaggc taggtgtggt ggctcacacc tgtaatccca
421 gcactttggg aggtgaggc gggcggtatc caaggtcaag aaatcgagac catcctgacc
481 aacatggtga aaccccgctc ctactaaaaa taaaaaaatt acctgggcat ggtggcgcat
541 gcctgtattc ccaactactc gggaggctga ggcattgaaa tcacttgaac ctgggaggca
601 gaggttgtag gcgagccaag attgtgccac tgcactccag cctgcccaaa aaaatgagat
661 tctgtc
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(2) INFORMATION FOR SEQ ID NO:2810:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5424 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2810

```
1 ggttaccttc cctttgggag tcaacttctg ccacacctcc ttagggagag ggtgtagcat
61 agtagttaag aggggtccag ggccagaatg cctgggttta aatcctagct ctgcctctta
121 ccagctatgt agacctgggc aagtcattcg acgttttttg acttccattt cttcatctgt
181 aagatggaat tattataatc cctacttcca tagcctggta aagagcaaat aaatatatgg
241 aaaggcttga aatagtggct ggcacgtgta agcattagga ttggtcgttg tcattgatgg
301 agtctcaggt tcggtctgat cctcagcccc tgtgattctg tcgtgagggc actcacagct
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661 cttctcaatg agcccagcg aacctttctc ctccgcttca gcgactcaga gattgggggc
721 atcaccattg cccatgtcat ccggggccag gatggtgagg ccaccccgag cagtcctctg
781 tctctgtgac tgtgcctctt ggggtttctt ctgggaatga aatgtcctga ccttctctgt
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841 gccgacccctg atcttcagga agttcttcca gcttctcttc ttccttctgt ggtctaaatg
901 ttacacctct cactgtgagc tctgtgggaa cggagactag tgggtctctc tccctcagga
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 4741 caaatttggg agggtagagac actgcacaga agacagcagc aagtgtgctg gcctctctga
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 4861 tggtctgac atctacgtat ggctccacac ctccaatgct gcctgggagc cagggtaga
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 5161 cggctccagcc ccagctgga ggagaccctg agtccaaccc aggcctccc agggggccag
 5221 tgaagggtac ccacaccac cgccctatg tagggcaggg aagaaattgc aaaggacttg
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 5341 accagaagca caaaaacggg gaaggagaag ggagaaggag caggtccagt gttccaggcc
 5401 ccaattctgt gggcaaatgt gccca

(2) INFORMATION FOR SEQ ID NO:2811:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1475 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2811

1 gcagcaccta tctgagcagt tagagcgtct tctttttcag atttgtgtaca gtagattatt
 61 tattttggta ttttggaaata aaattttatt tatggcttag gatctatgac ccctgccttg
 121 agagggagaa tgggtagagg gagtgaaggg aagctggcgg tggatggggc aacagaaaag
 181 atgcagcagg cagggccctc tcatcacctg gagggccaca tggccaggcc tggaccagga
 241 ctctcaccct ggctcccagg cagcattgga ggtgtggagc catcacgtaga tgtcacagcc
 301 acctggaccc acttgggcac agtcagactc caaattcaga gtatttgggg gttagcatat
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 421 gtgtgtcac gtaggcaaaa gcagatagac acatgttcta tgtgtcatg caactaagg
 481 gccagctata catttaacat atcctaggta catcacgtt cacacagcta tacacgaaga
 541 atctcagccc ttgtactttt gcatagtctc atacacgtat cagaagcctc cacctggcta
 601 acaggaattt ggggcttttg gagatttttt aatcagggca aaacctgtac tagtaaccac
 661 atgtccagac cctccctatg ctcccaccca gggctccctg agctgcttcc cattccccta
 721 gggctgagac ccaatatact ctatccctgg cctctagtgt aaatgtgtct gtatgttct
 781 gcctatccgt cctaggccct gggtcagaat gggcgaggaa gccttccatg ccctaacctg
 841 tgcctttacc cagccccctt cctgctcagc cccatcacc tccagagagct ctgtatgtgt
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 961 ctcccttcc agtcagtact ggaaggaggt gggcagggga atgatagaaa ggaaggagt
 1021 gattggctcc acccactgtg cattctctct ttagtctttt cctcctgacc caggagtagg
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(2) INFORMATION FOR SEQ ID NO:2812:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19327 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2812

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 781 tctctgtgcc tgtgccctct ggggtttctt ctgggaatga aatgtcctga cttcctctgat
 841 gccgactcga atcttcagga agttcttcca gcttctcttc ttcttctgt ggtctaaatg
 901 ttcaccttct cactgtgagc tctgtgggaa cggagactag tgggtctctc tccctcagga
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18813 cttcccttcc agtcagtact ggaaggaggt gggcagggga atgatagaaa ggaaggaggt

18873 gatttggtcc acccactgtg cattctcctg ttagtctttt cctcctgacc caggagttagg
 18933 tggggataggg agggcaccct ccccatctgc tgcttgccag ggcatgagca agtgtccaga
 18993 gcagggtctgt gggggtagta gaagagctgt ctctttgggt tctccctcca gctgggatca
 19053 ccaactgggg ttggccctta ggtccatgtg ggacattgag atcccagatt gcccatagtg
 19113 ggagggctgc aggaggggct gtgccccaa ggaccctccc cccgactccc cttgcccctc
 19173 caggagaagc ttagtgaggt cctgttcagt gggaggcagc agaggaggga atatgtcttc
 19233 accaatcctg caaggagatg ggagaagcag tggagttagc atggcgccca ctcccctaga
 19293 tgccaccag cctccactcc caagctgcca ctac

(2) INFORMATION FOR SEQ ID NO:2813:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3567 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2813

1 cgccatcccg cgctctgagg actgggaggc cggggccagg acgcgagtct gcgcagccga
 61 gggtcccccag cgccccctgc agccgcgcgt aggcagagac ggagcccggc cctgcgcctc
 121 cgcaccacgc cgggacccc acccagcggc cgtaccccg agaagcagcg cgagcaccgc
 181 aagctcccg ctcggcgcca gaaaccggga gtggggccgg gcgagtgcgc ggcattcccg
 241 gccggcccg acgtccgccc gcgtggggc gaattccct cctcttccct ctctccttcc
 301 tttagcccg tgccgcgga cagctgccc ctcattctct ggggcgttct tccccgttgg
 361 ccaaccgtcg catcccgctg aactttgggg tagtgccgc ttagtggtga atgttcccca
 421 gccagagcgc atggcttggg aagcgaggcg cgaaccggg cccgaagcc gccgtccggg
 481 agacgggtgat gctgttctg tgccgtgggg tcccgaacc cgcacctac aacgtggaca
 541 ctgagagcgc gctgctttac caggccccc acaacacgct gttcggtac tcggtcgtgc
 601 tgccagacca cggggcgaa ccatggctcc tagtggtg cccactgcc aactggctcg
 661 ccaacgcttc agtgatcaat cccggggcga tttacagatg caggatcgga aagaatcccg
 721 gccagacgtg cgaacagctc cagctgggta gccctaattg agaaccttgt ggaagactt
 781 gtttgaaga gagagacaat cagtgggttg gggcacact ttccagacag ccaggagaaa
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 1021 gtcagctgg aatattccag ttttacacaa aggatttaatt tgtgatggg gccccagat
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 2101 gaacacatca agcatttatg cggaaagatg tgcgggacat cctcaccaca attcagattg
 2161 aagctgtcta ccaccttggc cctcatgtca tcagtaaacg aagtacagag gaattcccac
 2221 cacttcagcc aattcttcag cagaagaaa gaaaagacat aatgaaaaaa acaataaact
 2281 ttgcaagggt ttgtgccc atgaaattgt ctgctgattt acaggtttct gcaaagattg
 2341 ggtttttgaa gccccatgaa aataaaacat atcttgctgt tgggagtatg aagacattga
 2401 tgttgaaatg gtccttgttt aatgctggag atgatgcata tgaacgact ctacatgtca
 2461 aactaccggt ggtcttttat ttcatgaaga ttttagagct ggaagagaag caaataaact
 2521 gtgaagtcac agtaactct ggcgtggtag aacttgactg cagtattggc tatatatatg
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 2941 agctgttcaa ctttttggat gtccagacta ctactggaga atgccacttt gaaaattatc
 3001 aaagagtgtg tgcattagag cagcaaaaaga gtgcaatgca gaccttgaaa ggcatagtcc
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 3301 atgttgcgca tgttctactg gaaggactac atcatcaaag acccaaacgt tatttcacca
 3361 tagtgattat ttcaagtagc ttgctacttg gacttattgt acttctgttg atctcatatg
 3421 ttatgtggaa ggctggcttc tttaaaagac aatacaaatc tatcctacaa gaagaaaaca
 3481 gaagagacag ttggagttat atcaacagta aaagcaatga tgattaagga cttctttcaa
 3541 attgagagaa tggaaaacag cccgcc

(2) INFORMATION FOR SEQ ID NO:2814:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3805 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2814

1 gaattccggg ccgcttagtg ttgaatgttc cccaccgaga gcgcatggct tgggaagcga
 61 ggcgcgaacc cgggccccga agccgcgcgc cgggagacgg tgatgctggt gctgtgctg
 121 ggggtccccga ccggccgcgc ctacaacgtg gacactgaga gcgcgctgct ttaccagggc
 181 cccacaaca cgtgttcggt ctactcggtc gtgctgcaca gccacggggc gaaccgatgg
 241 ctctagtgtg gtgcgcccac tgccaactgg ctgcaccaacg cttcagtgat caatcccggg
 301 gcgatttaca gatgcaggat cggaaaagaat cccggccaga cgtgcgaaca gctccagctg
 361 ggtagcccta atggagaacc ttgtggaaag acttgtttgg aagagagaga caatcagtgg
 421 ttgggggtca cactttccag acagccagga gaaaatggat ccacgtgac ttgtggcat
 481 agatggaaaa atatatttta cataaagaat gaaaataagc tcccactggt tggttgctat
 541 ggagtgcgcc ctgattttacg aacagaactg agtaaaagaa tagctccgtg ttatcaagat
 601 tatgtgaaaa aatttggaga aaattttgca tcatgtcaag ctggaatatc cagtttttac
 661 aaaaaggatt taattgtgat gggggcccca ggtcatctt actggactgg ctctcttttt
 721 gtctacaata taactacaaa taaatacaag gcttttttag acaaacaaaa tcaagtaaaa
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 1381 gatgtagcag ttggtgcttt tcggtctgat tctgctgtct tgctaaggac aagacctgta
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 1501 gttgaaaatg gatggccttc tgtgtgcata gatctaacac tttgtttctc atataagggc
 1561 aaggaagtgc caggttacat tgttttgttt tataacatga gtttgatgt gaacagaaaag
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 1921 tgttctgctg atttacaggt ttctgcaaag attgggtttt tgaagcccca tgaataataa
 1981 acatatcttg ctgttgggag tatgaagaca ttgatgttga atgtgtcctt gtttaatgct
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 2281 catgctacct gtgaaaatga agaggaaatg gacaatctaa agcacagcag agtgactgta
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2401 tttgtgtatg gatcaaatga tgaaaatgag cctgaaacgt gcatgggtgga gaaaaatgaac
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 2521 atggtaccac attcttttag ccccaaaact gataagctgt tcaacatttt ggatgtccag
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 2641 aagagtgcac tgacagacct gaaaggcata gtccggttct tgtccaagac tgataagagg
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 2881 aatccaagag taattgaact aaacaaggat gagaatgttg cgcagtgtct actggaagga
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 3121 agtaaaagca atgatgatta aggacttctt tcaaatggag agaattgaaa acagactcag
 3181 gttgtagtaa agaaatttaa aagacactgt ttacaagaaa aaatgaattt tgtttggact
 3241 tcttttactc atgatcttct gacatattat gtcttcatgc aaggggaaaa tctcagcaat
 3301 gattactctt tgagatagaa gaactgcaa ggtataataa cagccaaaga taatctctca
 3361 gctttttaa ggttagagaa acactaaagc attcaattta ttcaagaaaa gtaagccctt
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 3481 gaaatactac ttaccatag tgcttgctc agtaaaatga accccactgg gtgggcagag
 3541 gttcatttca aatcacatct tgatacttct tcaaaatag ttctttaaaa atataatttt
 3601 ttagagagct gttcccaat tttctaacga gtggaccatt atcaatttaa agccctttat
 3661 ttataatata ttctctacgg gctgtgttcc aacaaccatt ttttttcagc agactatgaa
 3721 tattatagta ttataggcca aactggcaaa cttcagactg aacatgtaca ctggtttgag
 3781 cttagtgaac tgacttccgg aatct

(2) INFORMATION FOR SEQ ID NO:2815:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7372 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2815

1 cgccatcccc cgctctgcgg actgggaggg ccggggcagg acgcgagtct gcgcagccga
 61 ggttccccag cgccccctgc agccgcgcgt aggcagagac ggagcccgcc cctgcgcctc
 121 cgcaccacgc ccgggacccc acccagcggc ccgtaccggg agaagcagcg cgagcaccgc
 181 aagctccccg ctcggcggca gaaaccggga gtggggccgg gcgagtgcgc ggcattccag
 241 gccggcccca acgtccgccc gcggtgggcc gacttcccct cctctcccct ctctccttcc
 301 tttageccgc tggcgccgga cagctgcgc ctcatctctt gggcggttct tccccgttgg
 361 ccaaccgtcg catcccgtgc aactttgggg tagtgccgc ttagtgttga atgttccca
 421 ccgagagcgc atggccttgg aagcgaggcg cgaacccggg cccgaagcc gccgtccggg
 481 agacggtgat gctgttgctg tgctggggg tcccagccgg ccgcccctac aacgtggaca
 541 ctgagagcgc gctgctttac cagggccccc acaacacgct gttcggctac tccgtcgtgc
 601 tgcacagcca cggggcgaa c gatggctcc tagtgggtgc gcccactgcc aactgggtcg
 661 ccaacgcttc agtgatcaat cccggggcga ttacagatg caggatcgga aagaatcccg
 721 gccagacgtg cgaacagctc cagctgggta gccctaattg agaacctgt ggaagactt
 781 gtttggaaga gagagacaat cagtggttgg ggtcacact ttccagacag ccaggagaaa
 841 atggatccat cgtgacttgt ggcatagat gaaaaaatat attttacata aagaatgaaa
 901 ataagctccc cactggttgt tgctatggag tgccccctga ttacgaaca gaactgagta
 961 aaagaatagc tccgtgttat caagattatg tgaaaaaatt tggagaaaat tttgcatcat
 1021 gtcaagctgg aatatccagt ttttacaca aggatttaat tgtgatgggg gccccaggat
 1081 catcttactg gactggctct cttttgtctt acaatataac tacaataaaa tacaaggctt
 1141 ttttagacaa acaaaatcaa gtaaaatttg gaagtattt aggatattca gtcggagctg
 1201 gtcattttcg gagccagcat actaccgaag tagtcggagg agctcctcaa catgagcaga
 1261 ttggtaagcg atatatattc agcatgtatg aaaaagaact aaatatctta catgaaatga
 1321 aaggtaaaaa gcttgatcgc tactttggag cttctgtctg tgctgtggac ctcaatgcag
 1381 atggcttctc agatctgctc gtgggagcac ccatgcagag caccatcaga gaggaaggaa
 1441 gagtgtttgt gtacatcaac tctggctcgg gacgagtaat gaatgcaatg gaaacaaacc
 1501 tggttggaag tgacaaatat gctgcaagat ttggggaatc tatagttaat cttggcgaca
 1561 ttgacaatga tggctttgaa gatgttgcta tcggagctcc acaagaagat gacttgcaag
 1621 gtgctattta tatttacaat ggccgtgcag atgggatctc gtcaaccttc tcacagagaa
 1681 ttgaaggact tcagatcagc aaatcgtaa gtatgtttgg acagtctata tcaggacaaa
 1741 ttgatgcaga taataatggc tatgtagatg tagcagttgg tgcttttcgg tctgattctg

1801 ctgtcttctgct aaggacaaga cctgtagtaa ttgttgacgc ttctttaagc caccctgagt
1861 cagtaaatag aacgaaattt gactgtgttg aaaatggatg gccttctgtg tgcataagatc
1921 taacactttg tttctcatat aagggaagg aagttccagg ttacattgtt ttgttttata
1981 acatgagttt ggatgtgaac agaaaggcag agtctccacc aagattctat ttctcttcta
2041 atggaacttc tgacgtgatt acaggaagca tacagggtgc cagcagagaa gctaactgta
2101 gaacacatca agcatttatg cggaaagatg tgcgggacat cctcacccca attcagattg
2161 aagctgctta ccaccttggg cctcatgtca tcagtaaacg aagtacagag gaattccac
2221 cacttcagcc aattcttcag cagaagaaaag aaaaagacat aatgaaaaaa acaataaact
2281 ttgcaagggt ttgtgcccac gaaaattgtt ctgctgattt acaggtttct gcaaagattg
2341 ggtttttgaa gccccatgaa aataaaacat atcttgctgt tgggagtagt aagacattga
2401 tgttgaatgt gtccttgttt aatgctggag atgatgcata tgaacgcact ctacatgtca
2461 aactaccctg ggtctttat ttcatlaaga ttttagagct ggaagagaag caaataaact
2521 gtgaagtcac agataactct ggcgtggtac aacttgactg cagtattggc tatatatatg
2581 tagatcatct ctcaaggata gatattagct ttctcttggg tgtgagctca ctacagagag
2641 cgaagagga cctcagatc acagtgcatt ctacctgtga aaatgaagag gaaatggaca
2701 atctaaagca cagcagagtg actgtagcaa tacctttaaa atatgaggtt aagctgactg
2761 ttcatgggtt tgtaaaccca acttcatttg tgtatggatc aaatgatgaa aatgagcctg
2821 aaacgtgcat ggtggagaaa atgaacttaa ctttccatgt tatcaacact ggcaatagta
2881 tggctcccaa tgttagtgtg gaaataatgg taccaaattc ttttagcccc caaactgata
2941 agctgttcaa catttttgat gtccagacta ctactggaga atgccacttt gaaaattatc
3001 aaagagtgtg tgcattagag cagcaaaaaga gtgcaatgca gaccttgaaa ggcatagttc
3061 aagttcttgc caagactgat aagaggctat tgtactgcac aaaagctgat ccacattgtt
3121 taaatttctt gtgtaatttt gggaaaatgg aaagtggaaa agaagccagt gttcatatcc
3181 aactggaagg ccggccatcc attttagaaa tggatgagac ttcagcactc aagtttgaaa
3241 taagagcaac aggttttcca gagccaaatc caagagtaat tgaactaaac aaggatgaga
3301 atgttgcgca tgttctactg gaaggactac atcatcaaag acccaaacgt tatttcacca
3361 tagtgattat ttcaagtagc ttgctacttg gacttattgt acttctgttg atctcatatg
3421 ttatgtggaa ggctggcttc tttaaaagac aatacaaatc tatcctacaa gaagaaaaca
3481 gaagagacag ttggagttat atcaacagta aaagcaatga tgattaagga cttctttcaa
3541 attgagagaa tggaaaacag cctgccc
1 gaattccggg ccgcttagtg ttgaatgttc cccaccgaga gcgcatggct tgggaagcga
61 ggcgcgaacc cgggccccga agccgcctgc cgggagacgg tgaatgctgt gctgtgcctg
121 ggggtcccca ccggccgccc ctacaacgtg gacactgaga gcgcgtgct ttaccagggc
181 cccacaaca cgctgttcgg ctactcgtgc gtgctgcaca gccacggggc gaaccgatgg
241 ctcctagtgg gtgcgcccac tgccaactgg ctgcgcaacg cttcagtgat caatcccggg
301 gcgatttaca gatgcaggat cggaaagaat cccggccaga cgtgcgaaca gctccagctg
361 ggtagcccta atggagaacc ttgtggaagg acttgtttgg aagagagaga caatcagttg
421 ttgggggtca cactttccag acagccagga gaaaatggat ccatcgtgac ttgtgggcat
481 agatggaaaa atatatttta cataaagaat gaaaataagc tccccactgg tgggtgctat
541 ggagtgcacc ctgatttacg aacagaactg agtaaaagaa tagctccgtg ttatcaagat
601 tatgtgaaaa aatttggaga aaattttgca tcatgtcaag ctggaatata cagtttttac
661 acaaaaggat taattgtgat gggggcccca ggatcatctt actggactgg ctctcttttt
721 gtctacaata taactacaaa taaatacaag gcttttttag acaaacaaaa tcaagtaaaa
781 ttgggaagtt atttaggata ttcagtcgga gctggtcatt ttcggagcca gcatactacc
841 gaagtagtcg gaggagctcc tcaacatgag cagatttgga aggcataatat attcagcatt
901 gatgaaaaag aactaaatat cttacatgaa atgaaagta aaaagcttgg atcgtacttt
961 ggagctctct tctgtgctgt ggacctcaat gcagatggct tctcagatct gctcgtggga
1021 gcacccatgc agagcaccat cagagaggaa ggaagagtgt ttgtgtacat caactctggc
1081 tcgggagcag taatgaatgc aatggaaaca aacctcgttg gaagtgcaca atatgctgca
1141 agatttgggg aatctatagt taatcttggc gacattgaca atgatggctt tgaagatgtt
1201 gctatcgagg ctccacaaga agatgacttg caaggtgcta tttatattta caatggccgt
1261 gcagatggga tctcgtcaac cttctcacag agaattgaag gacttcagat cagcaaatcg
1321 ttaagtatgt ttggacagtc tatatcagga caaattgatg cagataataa tggctatgta
1381 gatgtagcag ttggtgcttt tcggtctgat tctgctgtct tgctaaggac aagacctgta
1441 gtaattgttg acgcttcttt aagccacctt gactcagtaa atagaacgaa atttgactgt
1501 gttgaaaaat gatggccttc tgtgtgcata gatctaacac ttgttttctc atataagggc
1561 aaggaaagtt caggttacat tgttttgttt tataacatga gtttggatgt gaacagaaaag
1621 gcagagtctc caccaagatt ctatttctct tctaattgaa cttctgacgt gattacagga
1681 agcatacagg tgtccagcag agaagctaac tgtagaacac atcaagcatt tatgcggaag
1741 gatgtgcggg acatcctcac cccaattcag attgaagctg cttaccacct tggctctcat
1801 gtcatacagta aacgaagtac agaggaattc ccaccacttc agccaattct tcagcagaag
1861 aaagaaaaag acataatgaa aaaaacaata aactttgcaa ggttttgtgc ccatgaaaat

1921 tgtttctgctg atttacaggt ttctgcaaag attgggtttt tgaagcccca tgaaaataaa
1981 acatatcttg ctgttgggag tatgaagaca ttgatgttga atgtgtcctt gtttaagtct
2041 ggagatgatg catatgaaac gactctacat gtcaaactac ccgtgggtct ttatttcatt
2101 aagatttttag agctggaaga gaagcaaata aactgtgaag tcacagataa ctctggcgtg
2161 gtacaacttg actgcagtat tggctatata tatgtagatc atctctcaag gatagatatt
2221 agctttctcc tggatgtgag ctactcagc agagcggaaag aggacctcag tatcacagtg
2281 catgctacct gtgaaaatga agaggaaatg gacaatctaa agcacagcag agtgactgta
2341 gcaatacctt taaaatatga ggttaagctg actgttcatg ggtttgtaaa cccaacttca
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2521 atgggtaccaa attcttttag ccccaaaact gataagctgt tcaacatttt ggatgtccag
2581 actactactg gagaatgcca ctttgaaaat tatcaaagag tgtgtgcatt agagcagcaa
2641 aagagtgcaa tgcagacctt gaaaggcata gtccggttct tgtccaagac tgataagagg
2701 ctattgtact gcataaaagc tgatccacat tgtttaaatt tcttgtgtaa ttttgggaaa
2761 atggaaagtg gaaaagaagc cagtgttcat atccaactgg aaggccggcc atccatttta
2821 gaaatggatg agacttcagc actcaagttt gaaataagag caacaggttt tccagagcca
2881 aatccaagag taattgaact aaacaaggat gagaatgttg cgcagtgtct actggaagga
2941 ctacatcatc aaagacccaa acgttatctt accatagtga ttatttcaag tagcttgcta
3001 cttggactta ttgtacttct gttgatctca tatgttatgt ggaaggctgg cttctttaa
3061 agacaatata aatctatcct acaagaagaa aacagaagag acagttggag ttatatcaac
3121 agtaaaagca atgatgatta aggacttctt tcaaattgag agaattgaaa acagactcag
3181 gttgtagtaa agaaatttaa aagacactgt ttacaagaaa aaatgaattt tgtttggact
3241 tcttttactc atgatcttgt gacatattat gtcttcatgc aaggggaaaa tctcagcaat
3301 gattactctt tgagatagaa gaactgcaaa ggtaataata cagccaaaga taatctctca
3361 gcttttaaat gggtagagaa aactaaagc attcaattta ttcaagaaaa gtaagccctt
3421 gaagatatct tgaaatgaaa gtataactga gttaaattat actggagaag tcttagactt
3481 gaaatactac ttaccatagt tgcctgcctc agtaaaatga accccactgg gtgggcagag
3541 gttcatttca aatacatctt tgatacttgt tcaaaatatg ttctttaaaa atataatttt
3601 ttagagagct gttcccaaat ttctaacga gtggaccatt atcactttaa agccctttat
3661 ttataatata tttcctacgg gctgtgttcc aacaaccatt ttttttcagc agactatgaa
3721 tattatagta ttataggcca aactggcaaa cttcagactg aacatgtaca ctggtttgag
3781 cttagtgaat tgacttccgg aatct

(2) INFORMATION FOR SEQ ID NO:2816:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1108 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2816:

1 cagctgtccc tccccactgc catttattcc ttccttcatt caaaccttat gtggctgcta
61 cttaccgtgt gttaagtgtt cacttttttt cttggaattc aaaaaaagaa ggacagtatt
121 tggggcacag atcttttggg gttctatata tttttttaa gtttcatttt acatttgtgt
181 gtgcgtgtgt gtgtgtgtgt gagacagtct tgctctgttg cccaggctgg agtgacgtg
241 cataatcatt ggctcactgt agcctcaaag tcctgggccc aagcgatctt cccacctcag
301 ccacccaaaa tgcgtgggtt acaggtttat gccactctgt ctgacctgaa agttttgggt
361 ttactttccc ttctttctct ttgctgaagt cagagatgat ggcagcttcc agattctctg
421 gtgcctgtgc tgggctcgtg ctggtcattg tcttgggtcc aggattcatt ctggagactc
481 tcagggaagt ttcccatgac aaggaaatgt aggagagtgt gctggctttg cgtgctctc
541 tgccaagccc tgcttctcct ggtgggacac actgaaccac agccagggca ttttgggtgt
601 tagttaaaaa aaaaaaaaaa aaaaaaaagg aagaagaagg cactgtgtaa ttgtgccggg
661 gatcttcaga aattgtaatg atgaaagagt gcaagctctc acttcccctt cctgtacagg
721 gcaggttgtg cagctggagg cagagcagtc ctctctgggg agcctgaagc aaacatggat
781 caagaaactg taggcaatgt tgcctgtttg gccatcgta cctcatcag cgtggtccag
841 aatggtaagg aaagcccttc actcagggaa gaacagaagg ggagattttc tttgatggtt
901 gtttggaagt caggcttaaa caattgtgtc tgtgtgtgag catgcacaaa cacttttacc
961 ttatctttat tttcttctt ttatttgaat gtatagggtt gtgtgtattt ctgtgtaaat
1021 ttgggggttt cctcctctta gtcttctact tttgtgtgta ttaccagtcc cattttttaga
1081 gccagggtcg caacttgaag gttttgct

(2) INFORMATION FOR SEQ ID NO:2817:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 540 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2817:

```

1  tgcgtttttgg gggttcctcg agtatcaatc atggatcaag aaactgtagg caatgttgtc
61  ctgttggcca tgcaccct catcagcgtg gtccagaatg gattctttgc ccataaagtg
121 gagcacgaaa gcaggaccca gaatgggagg agcttccaga ggaccggaac acttgccctt
181 gagcgggtct acactgccaa ccagaactgt gtagatgcgt accccacttt cctcgctgtg
241 ctctgggtctg cggggtact ttgcagccaa gttcctgctg cgtttgtgtg actgatgtac
301 ttgtttgtgc ggcaaaaagta ctttgtcggg tacctaggag agagaacgca gagcacccct
361 ggctacatat ttgggaaacg catcatactc ttctgttcc tcatgtccgt tgctggcata
421 ttcaactatt acctcatctt ctttttcgga agtgactttg aaaactacat aaagacgacg
481 tccaccacca tctccctct acttctcatt tctaactct ctgtgaata tggggttgtt
  
```

(2) INFORMATION FOR SEQ ID NO:2818:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2022 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2818:

```

1  atgccctcct acacgggtcac cgtggccact ggcagccagt ggttcgccgg cactgacgac
61  tacatctacc tcagcctcgt gggctcggcg ggctgcagcg agaagcacct gctggacaag
121 cccttctaca acgacttcga gcgtggcgcg gtggattcat acgacgtgac tgtggacgag
181 gaactgggcg agatccagct ggtcagaatc gagaagcgca agtactggct gaatgacgac
241 tggtagctga agtacatcac gctgaagacg cccacagggg actacatcga gttcccttgc
301 taccgctgga tcacggcgga tctcagaggt gtctgagggg atggacgcgc aaagtgtggc
361 cgagatgacc aaattcacat tctcaagcaa caccgacgta aagaactgga aacacggcaa
421 aaacaatatc gatggatgga gtggaaccct ggcttccctc tgagcatcga tgccaaatgc
481 cacaaggatt taccctcgtg tatccagttt gatagtgaag aaggagtgga ctttgttctg
541 aattactcca aagcgatgga gaacctgttc atcaaccgct tcatgcacat gttccagtct
601 tcttggaatg acttcgccga ctttgagaaa atctttgtca agatcagcaa cactatttct
661 gacgggggtc tgaatcactg gcaggaagac ctgatgtttg gctaccagtt cctgaatggc
721 tgcaaccctg tgttgatccg gcgctgcaca gagctgcccg agaagctccc ggtgaccacg
781 gagatggtag agtgacgctt ggagcggcag ctcagcttgg agcaggaggt ccagcaaggg
841 aacattttca tctgtgactt tgagctgctg gatggcatcg atgccaacaa aacagacccc
901 tgcaactccc agttcctggc cgctcccatc tgcttgctgt ataagaacct ggccaacaag
961 attgtcccca ttgccatcca gctcaaccaa atcccgggag atgagaacct tattttcctc
1021 ccttcggatg caaaatacga ctggcttttg gccaaaatct ggggtgcgttc cagtgaactc
1081 cagctccacc agaccatcac ccaccttctg cgaacacatc tgggtgtctga ggtttttggc
1141 attgcaatgt accgcagctt gctgtgtgtg cacccttctt tcaagctgct ggtggcacac
1201 gtgagattca ccattgcaat caacaccaag gcccgtagac agctcatctg cgagtgtggc
1261 ctctttgaca aggccaacgc cacagggggc ggtgggcacg tgcagatggt gcagagggcc
1321 atgaaggacc tgacctatgc ctccctgtgc ttcccgagg ccatcaaggc ccggggcatg
1381 gagagcaaaag aagacatccc ctactacttc tacccgggag acgggctcct ggtgtgggaa
1441 gccatcagga cgttcacggc cgaggtggtg gacatctact acgagggcga ccaggtgggt
1501 gaggaggacc cggagctgca ggaactcgtg aacgatgtct acgtgtacgg catgcggggc
1561 cgcaagtccct caggcttccc caagtcggtc aagagccggg agcagctgtc ggagtacctg
1621 accgtggtga tcttcaccgc ctccgccag cacgcccgcg tcaacttcgg ccagtacgac
1681 tgggtgctct ggatcccca tgcgccccca accatgcgag ccccgccacc gactgccaa
1741 ggcgtggtga ccattgagca gatcgtggac acgctgcccg acccgggccg ctctgctgtg
1801 catctgggtg cagtgtgggc gctgagccag ttccaggaaa acgagctgtt cctgggcatg
1861 taccagaag agcattttat cgagaagcct gtgaaggaag ccatggcccg attccgcaag
1921 aacctcgagg ccattgtcag cgtgattgct gagcgcaaca agaagaagca gctgccatat
1981 tactacttgt cccagaccg gattccgaac agtgtggcca tc
  
```

(2) INFORMATION FOR SEQ ID NO:2819:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2500 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2819:

```

1  gggcccgccg ctcgctgctc ccgcgcccg cgcctatgcc tcctacacgg tcaccgtggc
61  cactggcagc cagtggctcg ccggcactga cgactacatc tacctcagcc tcgtgggctc
121 ggcgggctgc agcgagaagc acctgctgga caagcccttc tacaacgact tcgagcgctg
181 cgcggtggat tcatacgacg tgactgtgga cgaggaactg ggcgagatcc agctggctag
241 aatcgagaag cgcaagtact ggctgaatga cgactgggtac ctgaagtaca tcacgctgaa
301 gacgccccac ggggactaca tcgagttccc ctgctaccgc tggatcaccg gcgatgtcga
361 ggttgctctg agggatggac gcgcaaagt ggcccagat gaccaaattc acattctcaa
421 gcaacaccga ctgaaagaac tggaaacacg gcaaaaacaa tatcgatgga tggagtggaa
481 ccctggcttc cccttgagca tcgatgccaa atgccacaag gatttaccct gtgatatcca
541 gtttgatagt gaaaaaggag tggactttgt tctgaattac tccaaagcga tggagaacct
601 gttcatcaac cgcttcacgc acatgttcca gtcttcttgg aatgacttcg ccgactttga
661 gaaaatcttt gtcaagatca gcaacactat ttctgagcgg gtcataatc actggcagga
721 agacctgatg tttggctacc agttcctgaa tggctgcaac cctgtgttga tccggcgctg
781 cacagagctg cccgagaagc tcccggtgac cacgagatg gttagtgca gctggagcg
841 gcagctcagc ttggagcagg aggtccagca agggaacatt ttcatcgtgg actttgagct
901 gctggatggc atcgatgcc acaaaacaga cccctgcaca ctccagttcc tggccgctcc
961 catctgcttg ctgtataaga acctggccaa caagattgtc cccattgcca tccagctcaa
1021 ccaaatcccg ggagatgaga acctatttt cctcccttcg gatgcaaat acgactggct
1081 tttggccaaa atctgggtgc gttccagtgat ctccacgtc caccagacca tcacccacct
1141 tctgcgaaca catctggtgt ctgaggtttt tggcattgca atgtaccgac agtcgctgc
1201 tgtgcacccc attttcaagc tgctgggtggc acacgtgaga ttaccattg caatcaacac
1261 caaggcccg gacgagctca tctgcgagtg tggcctcttt gacaaggcca acgccacagg
1321 ggcggtggg cacgtgcaga tgggtcagag ggccatgaag gacctgacct atgcctccct
1381 gtgctttccc gaggccatca aggcccggg catggagagc aaagaagaca tcccctacta
1441 cttctaccgg gacgacgggc tcttggtgtg ggaagccatc aggacgttca cggccgaggt
1501 ggtagacatc tactacgagg gcgaccaggt ggtggaggag gaccggagc tgcaggactt
1561 cgtgaacgat gtctacgtgt acggcatgag gggccgcaag tctcaggct tcccaagtc
1621 ggtcaagagc cgggagcagc tgtcggagta cctgaccgtg gtgatcttca ccgctccgc
1681 ccagcacgcc gcggtcaact tcggccagta cgactggtgc tctggatcc ccaatgcgcc
1741 cccaaccatg cgagccccgc caccgactgc caaggcgctg gtgaccattg agcagatcgt
1801 ggacacgctg cccgaccgag ggcgtctctg ctggcatctg ggtgcagtg gggcgctgag
1861 ccagttccag gaaaacgagc tgttctggg catgtacca gaagagcatt ttatcgagaa
1921 gcctgtgaag gaagccatgg cccgattccg caagaacctc gaggccattg tcagcgtgat
1981 tgctgagcgc aacaagaaga agcagctgcc atattactac ttgtccccag accgatttcc
2041 gaacagtgtg gccatctgag cactactgcca gtctcactgt ggaaggcca gctgcccag
2101 ccagatggac tccagcctgc ctggcaggtg tctggccagg cctcttgcca gtcacatctc
2161 ttctccgag gccagtacct ttccatttat tctttgatct tcagggaact gcatagattg
2221 atcaaatgtt aaacaccata gggaccatt ctacacagag caggactgca cagcgtcctg
2281 tccacacca gctcagcatt tccacacca gcagcaacag caaatcacga ccaatgatag
2341 atgtctattc ttgttgagga catgggatga ttattttctg ttctatttgt gcttagtcca
2401 attccttgca catagtaggt acccaattca attactattg aatgaattaa gaattggttg
2461 ccataaaaaa aaatcagttc atttaaaaaa aaaaaaaaaa

```

(2) INFORMATION FOR SEQ ID NO:2820:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2484 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2820:

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1  gggcccgccg ctcgctgctc ccgcgcccg cgcctatgcc tcctacacgg tcaccgtggc
61  cactggcagc cagtggctcg ccggcactga cgactacatc tacctcagcc tcgtgggctc
121 ggcgggctgc agcgagaagc acctgctgga caagcccttc tacaacgact tcgagcgctg
181 cgcggtggat tcatacgacg tgactgtgga cgaggaactg ggcgagatcc agctggctag
241 aatcgagaag cgcaagtact ggctgaatga cgactgggtac ctgaagtaca tcacgctgaa
301 gacgccccac ggggactaca tcgagttccc ctgctaccgc tggatcaccg gcgatgtcga
361 ggttgctctg agggatggac gcgcaaagt ggcccagat gaccaaattc acattctcaa
421 gcaacaccga ctgaaagaac tggaaacacg gcaaaaacaa tatcgatgga tggagtggaa
481 ccctggcttc cccttgagca tcgatgccaa atgccacaag gatttaccct gtgatatcca
541 gtttgatagt gaaaaaggag tggactttgt tctgaattac tccaaagcga tggagaacct
601 gttcatcaac cgcttcacgc acatgttcca gtcttcttgg aatgacttcg ccgactttga

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661 gaaaatcttt gtcaagatca gcaacactat ttctgagcgg gtcataaatc actggcagga
721 agacctgatg tttggctacc agttcctgaa tggctgcaac cctgtgttga tccggcgctg
781 cacagagctg cccgagaagc tcccggtagc cacggagatg gtagagtga gacctggagcg
841 gcagctcagc ttggagcagg aggtccagca agggaacatt ttcacgtggt actttgagct
901 gctggatggc atcgatgcca aaaaaacaga cccctgcaca ctccagttcc tggccgctcc
961 catctgcttg ctgtataaga acctggccaa caagattgtc cccattgcca tccagctcaa
1021 ccaaataccc ggagatgaga accctatttt cctcccttcg gatgcaaaat acgactggct
1081 tttggccaaa atctgggtgc gttccagtga ctccacgtc caccagacca tcaccacact
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1321 gggcggtggg cacgtgcaga tgggtgcagag ggccatgaag gacctgacct atgcctccct
1381 gtgctttccc gaggccatca aggccgggg catggagagc aaagaagaca tcccctacta
1441 cttctaccgg gacgacgggc tctgtgtgtg ggaagccatc aggacgttca cggccgaggt
1501 ggtagacatc tactacgagg gcgaccaggt ggtggaggag gacccggagc tgcaggactt
1561 cgtgaacgat gtctacgtgt acggcatgcg gggccgcaag tcctcaggct tcccacagtc
1621 ggtcaagagc cgggagcagc tgtcggagta cctgaccgtg gtgactttca ccgctccgc
1681 ccagcacgcc gcggtcaact tggccagta cgaactgtgc tctggatcc ccaatgcgc
1741 cccaacctat cgagccccgc caccgactgc caagggcggt gtgaccattg agcagatcgt
1801 ggacacgctg cccgaccgcg gccgctcctg ctggcatctg ggtgcagtgt gggcgctgag
1861 ccagttccag gaaaacgagc tgttccctgg catgtacca gaagagcatt ttatcgagaa
1921 gcctgtgaag gaagccatgg cccgattccg caagaacctc gaggccattg tcagcgtgat
1981 tgctgagcgc aacaagaaga agcagctgcc atattactac ttgtccccag accggtatcc
2041 gaacagtgtg gccatctgag cactctgcca gtctcactgt gggaaggcca gctgccccag
2101 ccagatggac tccagcctgc ctggcaggtg tctggccagg cctcttgcca gtacatctc
2161 ttctcccgag gccagctact ttccatttat tctttgatct tcagggaact gcatagattg
2221 atcaaatgtt aaacaccata gggaccatt ctacacagag caggactgca cagcgtcctg
2281 tccacaccca gctcagcatt tccacaccaa gcagcaacag caaatcacga ccactgatg
2341 atgtctatct ttgttgagga catgggatga ttattttctg ttctatttgt gcttagtcca
2401 attccttgca catagtaggt acccaattca attactattg aatgaattaa gaattggttg
2461 ccataaaaaat aatcagttc attt

(2) INFORMATION FOR SEQ ID NO:2821:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2497 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2821:

1 gggcgccgag gctccccgcc gctcgtgct ccccgccccg cgccatgccc tcctacacgg
61 tcaccgtggc cactggcagc cagtgggtcg ccggcactga cgactacatc tacctcagcc
121 tcgtgggctc ggcgggctgc agcgagaagc acctgctgga caagcccttc tacaacgact
181 tcgagcgtgg cgcggtggat tcatacgacg tgactgtgga cgaggaaactg ggcgagatcc
241 agctggctag aatcgagaag cgcaagtact ggctgaatga cgactggtac ctgaagtaca
301 tcacgctgaa gacgccccac ggggactaca tcgagttccc ctgctaccgc tggatcaccg
361 gcgagtgcga ggttgcctg agggatggac gcgcaaagtt ggcccagat gaccaaattc
421 acattctcaa gcaacaccga cgtaaaagaac tggaaacacg gcaaaaacaa tatcgatgga
481 tggagtggaa ccctggcttc cccttgagca tcgatgcca atgccacaag gatttaccct
541 gtgatatcca gtttgatagt gaaaaaggag tggactttgt tctgaattac tccaaagcga
601 tggagaacct gttcatcaac cgcttcatgc acatgttcca gtcttcttgg aatgacttcg
661 ccgactttga gaaaatcttt gtcaagatca gcaacactat ttctgagcgg gtcataaatc
721 actggcagga agacctgatg tttggctacc agttcctgaa tggctgcaac cctgtgttga
781 tccggcgctg cacagagctg cccgagaagc tcccggtagc cacggagatg gtagagtga
841 gcctggagcg gctgctcagc ttggagcagg aggtccagca agggaacatt ttcacgtggt
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1261 caatcaacac caaggcccggt gagcagctca tctgcgagtg tggcctcttt gacaaggcca
1321 acgccacagg gggcggtggg cacgtgcaga tgggtgcagag ggccatgaag gacctgacct

1381 atgcctccct gtgctttccc gaggccatca agggccgggg catggagagc aaagaagaca
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 1501 cggccgaggt ggtagacatc tactacgagg gcgaccaggt ggtggaggag gaccggagc
 1561 tgcaggactt cgtgaacgat gtctacgtgt acggcatgcg gggccgcaag tcctcaggct
 1621 tccccaagtc ggtcaagagc cgggagcagc tgtcggagta cctgaccgtg gtgatcttca
 1681 ccgcctccgc ccagcacgcc gcggtcaact tcggccagta cgactggtgc tcctggatcc
 1741 ccaatgcgcc cccaaccatg cgagcccgcc caccgactgc caagggcggtg gtgaccattg
 1801 agcagatcgt ggacacgctg cccgaccgcg gccgctcctg ctggcatctg ggtgcagtgt
 1861 gggcgctgag ccagttccag gaaaacgagc tgttcctggg catgtaccca gaagagcatt
 1921 ttatcgagaa gcctgtgaag gaagccatgg cccgattccg caagaacctc gaggccattg
 1981 tcagcgtgat tgcctgagcg aacaagaaga agcagctgcc atattactac ttgtccccag
 2041 accggattcc gaacagtgtg gccatctgag cacactgcca gtctcactgt ggaaggcca
 2101 gctgccccag ccagatggac tccagcctgc ctggcaggct gtctggccag gcctcttggc
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 2221 tgcatagatt gtatcaaaagt gtaaacacca tagggaccca ttctacacag agcaggactg
 2281 cacaggcgctc ctgtccacac ccagctcagc atttccacac caagcagcaa cagcaaatca
 2341 cgaccactga tagatgtcta ttctgttgg agacatggga tgattatttt ctgttctatt
 2401 tgtgcttagt ccaattcctt gcacatagta ggtaccaat tcaattacta ttgaatgaat
 2461 taagaattgg ttgccataaa aataaatcag ttcattt

(2) INFORMATION FOR SEQ ID NO:2822:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10151 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2822:

1 cagctgtccc tccccactgc cattttattcc ttccttcatt caaaccttat gtggctgcta
 61 cttaccgtgt gttaaagtgt cacttttttt cttggaattc aaaaaaagaa ggacagtatt
 121 tggggcacag atcttttgggt gttctataca tttttttaa gtttcatttt acatttgtgt
 181 gtgcgtgtgt gtgtgtgtgt gagacagtct tgcctctgtg cccaggctgg agtgcagtgg
 241 cataatcatt ggctcactgt agcctcaaaag tccctggccc aagcgatctt cccacctcag
 301 ccacccaaaa tgcctggggtt acaggtttat gccactctgt ctgacctgaa agttttgggt
 361 ttactttccc ttccttctct tgcctgaagt cagagatgat ggcagcttcc agattctctg
 421 gtgcctgtgt tgggctcgtg ctggtcatgg tcttgggtcc aggattcatt ctggagactc
 481 tcagggaagt tccccatgac aaggaaatgt aggagagtgt gctggccttg cgtgctctc
 541 tgccaagccc tgcctctcct ggtgggacac actgaaccac agccagggca ttttgggtgt
 601 tagttaaaaa aaaaaaaaaa aaaaaaaagg aagaagaagg cactgtgtaa ttgtgccggg
 661 gatcttcaga aattgtaatg atgaaagagt gcaagctctc acttcccctt cctgtacagg
 721 gcaggttgtg cagctggagg cagagcagtc ctctctgggg agcctgaagc aaacatggat
 781 caagaaactg taggcaatgt tgcctctgtg gccatcgtca cctcatcag cgtggctccag
 841 aatggtaagg aaagcccttc actcagggaa gaacagaagg ggagattttc tttgatggtt
 901 gtttggaagt caggcttaaa caattgtgtc tgtgtgtgcg catgcacaaa cacttttacc
 961 ttatctttat tttcttcttt ttatttgaat gtatagggtt gtgtgtattt ctgtgtaaat
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 1 cgttttgggg gttcctggag tatcaatcat ggatcaagaa actgtaggca atgttgtcct
 61 gttggccatc gtcaccctca tcagcgtggt ccagaatgga ttctttgccc ataaagtgga
 121 gcacgaaagc aggaccaga atgggaggag ctccagagg accggaacac ttgcctttga
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 241 ctggtctgcg gggctacttt gcagccaagt tccgtctgcg tttgctggac tgatgtactt
 301 gttgtgctcg caaaagtact ttgtcgggta cctaggagag agaacgcaga gcaccctggg
 361 ctacataattt gggaaacgca tcatactctt cctgttccct atgtccgttg ctggcatatt
 421 caactattac ctcatcttct ttttcggaag tgactttgaa aactacataa agacgactct
 481 caccaccatc tcccctctac ttctcatttc ctaactctct gctgaatatg ggggttggtat
 1 gccctectac acggtcaccg tggccactgg cagccagtgg ttcgccgga ctgacgacta
 61 catctacctc agcctcgtgg gctcggcggg ctgcagcgag aagcacctgc tggacaagcc
 121 cttctacaac gacttcgagc gtggcgcggt ggattcatac gacgtgactg tggacgagga
 181 actgggagag atccagctg tcagaatcga gaagcgcaag tactggctga atgacgactg
 241 gtacctgaag tacatcacgc tgaagacgcc ccacggggac tacatcgagt tcccctgcta
 301 ccgctggatc accggcgatg tcgaggttgt cctgagggat ggacgcgcaa agttggcccg
 361 agatgaccaa attcacattc tcaagcaaca ccgacgtaaa gaactgaaa caccgcaaaa

403254.1
73999/01905

2101 ctggcagggtg tctggccagg cctcttggca gtcacatctc ttccctccgag gccagtagctt
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2221 gggacccatt ctacacagag caggactgca cagcgtcctg tccacaccca gctcagcatt
2281 tccacaccaa gcagcaacag caaatcacga ccactgatag atgtctatct ttgttggaga
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2401 acccaattca attactattg aatgaattaa gaattggttg ccataaaaat aaatcagttc
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1 tcctacacgg tcaccgtggc cactggcagc cagtgggttg ccggcactga cgactacatc
61 tacctcagcc tcgtgggtc ggcgggtgc agcgagaagc acctgctgga caagcccttc
121 tacaacgact tcgagcgtg cgcggtggat tcatacagac tgactgtgga cgaggaaactg
181 ggcgagatcc agctgggtcag aatcgagaag cgcaagtact ggctgaatga cgactggtac
241 ctgaagtaca tcacgctgaa gacgcccac ggggactaca tcgagttccc ctgctaccgc
301 tggatcaccg gcgatgtcga ggtgtcctg agggatggac gcgcaaagtt ggcccgagat
361 gaccaaattc acattctcaa gcaacaccga cgtaaagaac tggaaacacg gcaaaaacaa
421 tatcgatgga tggagtggaa ccctggcttc cccttgagca tcgatgccaa atgccacaa
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541 tccaaagcga tggagaacct gttcatcaac cgctcatgc acatgttcca gtcttcttg
601 aatgacttcg ccgactttga gaaaatcttt gtcaagatca gcaacactat tctgagcgg
661 gtcatgaatc actggcagga agacctgatg tttggctacc agttcctgaa tggctgcaac
721 cctgtgttga tccggcgctg cacagagctg cccgagaagc tcccggtgac cacggagatg
781 gttagagtga gctgggagc gcagctcagc ttggagcagg aggtccagca agggaaactt
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901 ctccagttcc tggcgctcc catctgcttg ctgtataaga acctggccaa caagattgtc
961 ccattgcca tccagctcaa ccaatcccg ggagatgaga accctatttt cctcccttcg
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1981 ttgtcccccag accgatttcc gaacagtgtg gccatctgag cacactgcca gtctcactgt
2041 ggaagggcca gctgccccag ccagatggac tccagcctgc ctggcagggt tctggccagg
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301 ccacggggac tacatcgagt tccctgcta ccgctggatc accggcgatg tcgaggttgt
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1741 catgcgagcc ccgcccagga ctgccaaggg cgtggtgacc attgagcaga tctgtgacac
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1861 ccaggaaaac gagctgttcc tgggcatgta ccagaagag cattttatcg agaagcctgt
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1981 gcgcaacaag aagaagcagc tgcatatta ctacttctcc ccagaccgga ttccgaacag
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2101 ggactccagc ctgctcggca ggtgtctcgg ccaggcctct tggcagtcac atctcttctt
2161 ccaggggcag tacctttcca ttattcttct gatcttcagg gaactgcata gattgtatca
2221 aagtgtaac accatagga cccattctac acagagcagg actgcacagg cgtcctgtcc
2281 acaccagctc cagcatttcc acaccaagca gcaacagcaa atcacgacca ctgatagatg
2341 tctattcttg ttggagacat gggatgatta ttttctgttc tatttgtgct tagtccaatt
2401 ccttgacat agtaggtacc caattcaatt actattgaat gaattaagaa ttggttgcca
2461 taaaaataaa tcagttcatt t

(2) INFORMATION FOR SEQ ID NO:2823:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2383 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2823:

1 ggcacgaggc tggctgagcc atgatgtgc tggcagaacc cctgcagagg gcttggttct
61 aggagactca gactcctctg tgaaaaagcc ctggagaggg cgcaccagca gggctgcact
121 tggctcctgt gaggaagggg ctcagggtct gggccctcc gctggggcgg ggtggggagc
181 caggcgggcg gctgggctgc agcaatggac cgtgagctgg cccagcccgc gtccgtgctg
241 agcctgctgt tctgtctgtg ccatgccatc atggggtcct cgggtgtacat cagggtggag
301 ctggccattg ctgtgctggc cctcctgggc aatgtgctgg tgtgctgggc cgtgtggctc
361 aacagcaacc tgcagaacgt caccactac ttgtgtgtgt cactggcgcc ggcgcacatc
421 gcagtgggtg tgctcgccat cccctttgcc atcaccatca gcaccgggtt ctgcgtgccc
481 tgccacggct gcctcttcat tgctgtctt gcctgtgtcc tcacgcagag ctccatcttc
541 agtctcctgg ccatcgccat tgaccgctac attgccatcc gcaccccgct ccggtacaat
601 ggcttggtga ccggcacgag ggctaagggc atcattgcca tctgctgggt gctgtcgttt
661 gccatcgccc tgaactccat gctaggttgg aacaactgcg gtcagccaaa ggagggcaag
721 aaccactccc agggctgcgg ggagggccaa gtggcctgtc tctttgagga tgtggtcccc
781 atgaactaca tgggtgactt caacttcttt gcctgtgtgc tgggtgccct gctgctcatg
841 ctgggtgtct atttgcgat ctctctggcg gcgcgacgac agctgaagca gatggagagc
901 cagcctctgc cgggggagcg ggcacggtcc acactgcaga aggaggtcca tgtgccaag
961 tcaactggcca tcattgtggg gctctttgcc ctctgctggc tgccctaca catcatcaac
1021 tgcttcaact tcttctgccc cgactgcagc cagcccccct tctgggtcat gtacctggcc
1081 atcgctctct cccacaccaa ttccgttgtg aatcccttca tctacgccta ccgtatccgc
1141 gagttccgcc agacctccg caagatcatt cgcagccacg tctgaggca gcaagaacct
1201 ttcaaggcag ctggcaccag tgcccgggtc ttggcagctc atggcagtg cggagagcag
1261 gtcagcctcc gtctcaacgg ccacccgcca ggagtgtggg ccaacggcag tgctccccc
1321 cctgagcgga ggcaccaatg ctatgccctg gggctgtgta gtggaggag tgcccaagag
1381 tcccagggga acacgggcct cccagacgtg gagctcctta gccatgagct caaggagtg
1441 tgcccagagc cccctggcct agatgacccc ctggcccagg atggagcagg agtgtcctga

1501 tgattcatgg agtttgcccc ttcctaaggg aaggagatct ttatctttct ggttggett
1561 accagtcacg ttgggagaag agagagagtg ccaggagacc ctgagggcag ccggttccta
1621 ctttggactg agagaaggga gcccaggct ggagcagcat gaggccagc aagaagggct
1681 tgggttctga ggaagcagat gtttcatgct gtgaggcctt gcaccagggt ggggccacag
1741 caccagcagc atcttttgctg ggcaggggcc agccctccac tgcagaagca tctggaagca
1801 ccaccttgct tccacagagc agcttgggca cagcagactg gcctggcctt gagactgggg
1861 agtggctcca acagcctcct gccaccaca caccactctc cctagactct cctagggttc
1921 aggagctgct gggcccagag gtgacatttg acttttttcc agggaaaatg taagtgtgag
1981 gaaacccttt ttattttatt acctttcact ctctggctgc tgggtctgcc gtcggtcctg
2041 ctgctaacct ggaccagag cctctgccgg ggagcctcag gcagtcctct cctgctgtca
2101 cagctgccat ccacttttca gtcccagggc catctcttgg agtgacaaag ctgggatcaa
2161 ggacaggag ttgtaacaga gcagtggcag agcatggggc caggtcccag gggagagggt
2221 ggggctggca ggcactggc atgtgctgag tagcgagag ctaccagtg agaggccttg
2281 tctaactgcc ttctcttcta aagggaatgt ttttttctga gataaaataa aaacgagcca
2341 catcgtgttt taagcttgc caaatgaaaa aaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2824:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2988 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2824:

1 catcaccttt ttttaagtag taagaataaa gccactgtat gattctctta atagctatac
61 attaatcctg ttttttagtg tgactggggc agccttcccg gaactggagt ctgtctcttt
121 cagtgtcttt ttgttttttg ttggtttttt cgagacgggg tcgatcacgg ctcaccacag
181 ccttaacctc cagggctcca gcaatcctcc cacctcagcc tcctgagtag ctgggaccac
241 aggtgtgtgc caccatctcc agcagtttgt ttattttatt tttctttttt tttttttggt
301 agaaatgggc ttttcgcca tgttgcccaa gctggctctg cactctggg ctgaagcaat
361 cctctcgctt tggcctccca gaccttggg attacagaat catgggtgag agctggcatg
421 gcccctagag gtcatttggg gtccagctgc ctcaccgtat caatgaggaa actgaggccc
481 agaaaagaaa agcatttttg ccagagctcc ctacagaaaa aacagaccac atctgatcct
541 tggccctgag tccagagtgg gaggcaccgt gacaacaatg cgcagagcag ggaatgcagg
601 gagccatgga tagtgctggg gtgcctcagg aacctgaag ctgggctgag ccatgatgct
661 gctgccagaa ccctgcaga gggcctgggt tcaggagact cagagctctc tgtgaaaaag
721 cccttgagga gcgccccagc agggctgcac ttggctcctg tgaggaaggg gctcaggggt
781 ctggggccct ccgctgggc cggctggga gccaggcggg cggctgggct gcagcaatgg
841 accgtgagct ggcccagccc gcgtccgtgc tgagcctgcc tgcgtctgtt ggcattgccc
901 tcatgggctc ctgggtgtac atcacggtgg agctggccat tgcgtgtgct gccatctgg
961 gcaatgtgct ggtgtgtgct gccgtgtgct tcaacagcaa cctgcagaac gtcaccaact
1021 actttgtggt gtcactggcg gcggccgaca tcgcagtggg tgtgctcgcc atcccctttg
1081 ccatcaccat cagcaccggg ttctgcgctg cctgccacgg ctgctcttct attgcctgct
1141 tcgtcctggt cctcagcag agctccatct tcagtctcct ggccatcgcc attgaccgct
1201 acattgccat ccgcatcccg ctccgttaca atggcttggg gaccggcagc agggctaagg
1261 gcatcattgc catctgctgg gtgctgtcgt ttgccatcgg cctgactccc atgctaggtt
1321 ggaacaactg cggtcagcca aaggagggca agaaccactc ccagggtgct ggggaggggc
1381 aagtggcctg tctcttttag gatgtgtgct ccatgaacta catggtgtac ttcaacttct
1441 ttgctgtgtg gctggtgccc ctgctgtcca tgcgtgggtg ctatttgcgg atcttctctg
1501 cggcgcgacg acagctgaag cagatggaga gccagcctct gccgggggag cgggcacggt
1561 ccacactgca gaaggaggtc catgctgcca agtcaactgc catcattgtg gggctctttg
1621 ccctctgctg gctgccctca cacatcatca actgcttcac tttcttctgc cccgactgca
1681 gccacgcccc tctctgctc atgtacctgg ccacgtcctt ctcccacacc aattcgggtg
1741 tgaatccctt catctacgcc taccgtatcc gcgagttccg ccagaccttc cgcaagatca
1801 ttgcagacca cgtcctgagg cagcaagaac ctttcaaggc agctggcacc agtcccggg
1861 tcttggcagc tcatggcagt gacggagagc aggtcagcct ccgtctcaac ggccaccgac
1921 caggagtgtg ggccaacggc agtgcctccc accctgagcg gaggcccaat ggctatgccc
1981 tggggctggt gagtggaggg agtgcccaag agtcccaggg gaacacgggc ctcccagacg
2041 tggagctcct tagccatgag ctcaaggagag tgtgcccaga gcccctggc ctatagatgac
2101 ccttgcccca ggatggagca ggagtgtcct gatgattcat ggagtttgcc ccttctaaag
2161 ggaaggagat ctttatcttt ctgggttggt tgaccagtca cgttgggaga agagagagag
2221 tgccaggaga ccctgagggc agccggttcc tactttggac tgagagaagg gagccccagg
2281 ctggagcagc atgaggccca gcaagaaggg cttgggttct gaggaagcag atgtttcatg

2341 ctgtgaggcc ttgcaccagg tggggggccac agcaccagca gcagcatctt tctgggcagg
 2401 cccagccctc cactgcagaa gcatctggaa gcaccacctt gtctccacag agcagcttgg
 2461 gcacagcaga ctggcctggc cctgagactg gggagtggct ccaacagcct cctgccaccc
 2521 acacaccact ctccctagac tctcctaggg ttcaggagct gctggggcca gaggtgacat
 2581 ttgacttttt tccaggaaaa atgtaagtgt gaggaaccc cttttatttt attacctttc
 2641 actctctggc tgctgggtct gccgtcggtc ctgctgctaa cctggcagca gagecctctgc
 2701 ccggggagcc tcaggcagtc ctctcctgct gtcacagctg ccattccactt ctcagtccca
 2761 gggccatctc ttggagtgc aaagctggga tcaaggacag ggagtgtgaa cagagcagtg
 2821 ccagagcatg ggcccaggtc ccaggggaga ggttggggct ggagggccac tggcatgtgc
 2881 tgagtagcgc agagctaccc agtgagaggc cttgtctaac tgcccttcct tctaaaggga
 2941 atgttttttt ctgagataaa ataaaaacga gccacatcgt gttttaag

(2) INFORMATION FOR SEQ ID NO:2825:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2825:

1 ggcacgagcc cagaaacaaa gacttcacgg acaaagctccc ttggaaccag agagaagccg
 61 ggatggaaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg
 121 atgcaactcc gtgccagaag gtgaacgaga gggccttttg ggcccaactg ctgccccctc
 181 tgtactcctt ggtattttgtc attggccttg ttggaaacat cctgggtggc ctggctcttg
 241 tgcaatacaa gaggctaaaa aacatgacca gcactctacct cctgaacctg gccatttctg
 301 acctgctctt cctgttcacg ctcccttctt ggatcgacta caagttgaag gatgactggg
 361 tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg
 421 agatcttttt catcatcctg ctgacgattg acaggtacct ggccatcgtc cagcgcctgt
 481 ttgcttggcg ggcacggacc gtcaactttg gtgtcatcac cagcatcac atttggggcc
 541 tggccatctt ggcttccatg ccaggcttat acttttccaa gacccaatgg gaattcactc
 601 accacacctg cagccttcac tttcctcacg aaagcctacg agagtgaag ctgtttcagg
 661 ctctgaaact gaacctcttt gggtggtat tgcctttggt ggtcatgac atctgttaca
 721 cagggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt
 781 tgatttttgt catcatgac atcttttttc tcttttgga cccctacaat ttgactatac
 841 ttatttctgt tttccaagac ttcctgttca cccatgagtg tgagcagagc agacatttgg
 901 acctggctgt gcaagtgcg gaggtgatcg cctacacgca ctgctgtgtc aaccagtg
 961 tctacgcctt cgttgggtgag aggttccgga agtacctgag gcagttgttc cacaggcgtg
 1021 tggctgtgca cctggtttaa tggctcccct tccctccgtt ggacaggtg gagagggcta
 1081 gctccacatc tccctccaca gggagcagtg aactctctgc tgggttctga ctcagaccat
 1141 aggaggccaa cccaaaataa gcaggcgtga cctgccaggc acactgagcc agcagcctgg
 1201 ctctcccagc caggttctga ctcttggcac agcatggagt cacagccact tgggatagag
 1261 atgggaatgta atgggtggcct ggggcttctg aggttctctg ggcttcagtc ttttccatga
 1321 acttctcccc tggtagaaag aagatgaatg agcaaaacca aatattccag agactgggac
 1381 taagtgtacc agagaagggc ttggactcaa gcaagatttc agatttgtga ccattagcat
 1441 ttgtcaacaa agtcacccac ttccactat tgcttgacaa aaccaattaa acccagtagt
 1501 ggtgactgtg ggctccattc aaagtgcgct cctaagccat gggagacact gatgtatgag
 1561 gaatttctgt tcttccatca cctccccccc ccgcccacc tccactgcc aagaacttgg
 1621 aaatagtgat ttccacagtg actccactct gactcccaga gccaatcagt agccagcatc
 1681 tgcctcccct tcaactccac cgcaggattt gggctcttgg aatcctgggg aacatagaac
 1741 tcatgacgga agagttaga cctaacgaga aatagaaatg ggggaactac tgctggcagt
 1801 ggaactaaga aagcccttag gaagaatttt tatatccact aaaatcaaac aattcaggga
 1861 gtgggctaag cacgggcat atgaataaca tgggtgtgct cttaaaatag ccataaaggg
 1921 gagggactca tcatttccat ttacccttct tttctgacta tttttcagaa tctctcttct
 1981 tttcaagtgt ggtgatatgt tggtagattc taatggcttt attgcagcga ttaataacag
 2041 gcaaaaggaa gcagggttgg tttcccttct tttgttctt catctaagcc tctgtgtttt
 2101 atgggtcaga gttccgactg ccattcttga cttgtcagca aaaaaaaaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2826:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 949 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2826:

1 agaagctttt gctcctggga ttaggttgat gggcctctaa tgtcaccagt gaaatgggat
61 attagatatt ttccagctag gatacgacag ctcccaataa aaccaaatta ctaagccttt
121 tctgcaagca aggagccgtc tggaacataa ggactttaac cttgggtagg agacaggcaa
181 gcagaagtct tcaatttgtt cacaattttc actgaggact caagtgcact aagaaagtaa
241 ttgtgattgt cagagccttg ttcttctctt tctttctcca gccgcacgct tcacctactc
301 aggagagtgc ctacgcaatc tgacttgaca gcttctagaa agaaattaga gcaacagggg
361 tctcagcagg gtggctcttg gccaaacact gaaagcaggc aggccttacc ttctctcttc
421 tgcccccttc aacttttttc tgatgttctt acccacatcc ctcaccacac cacacccttt
481 cattcatcct tgtcccagac ttattaagta tatacagata agcaatccag ggaacttgca
541 ttcattagga gaaacccaga aattcaaaag caataatgat ctaatcccag aggagtagaa
601 aacaggaagt gggcagctgc cagctttctt gctttgctgg agtattctgg aattgatgg
661 gttgagggtt ctggacacaa tgccccaaag cccttccttg ttgtgctggg ttcctatttc
721 tgctctcggc actgacttag cagctgctca agagctcact atgttgctt ggattacact
781 ggtctcacc acatctccgg cagtttggtg gcaaacctcc tgagcagcct tgggtgatga
841 aacctttcat ggtagcagga gaatgggact gtgaattctc aatccccctgt cccaccctct
901 tccttctct ctcagggcct taaagtctag gaggaggaag cacagcagc

(2) INFORMATION FOR SEQ ID NO:2827:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3734 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2827:

1 cttgctttgc tggagtattc tggttaattg atgggttgag ggttctggac acaatgcccc
61 aagcccccttc cttgttgtgc tgggttcccta tttctgctct cggcactgac ttagcagctg
121 ctcaagagct cactatgttg gcttggtatt cactgctctc cccacatctc cggcagtttg
181 tgggcaaacc tcctgagcag ccttgggtga tgaacacctt catggttagca ggagaatggg
241 actgtgaatt ctcaatcccc tgtccccacc ccttctctcc tctctcaggg ccttaaagtc
301 taggaggagg aagcacagca gcaactgact gggcagcctt tcaggaaaga tgcagccact
361 cctgcttctg ctggcctttc tcctaccacac tggggctgag gcaggtgagt gaccatcccc
421 accctcagag gcctgacctc atcccataga ttcttgagcc aaattgcctt ggtatatcct
481 aattctgtac tgttgagcaa gttatttgaa tttgtgttct ctcactataa aaatgagaat
541 aatattaata ccgatcttgc agagttgcca tgagagttaa ataagttaga gtatttaaat
601 gtcttggaat tgcccgcaca ctataagtgc tataaaaaca tgctttgtgt aaataatttg
661 gcagcatgtg tcagacccta cctaggaggt aagaatacag caataacagt accatcagct
721 catgtctaga tttttaaaca ccagtcccac gtggtcctga attggactca gagggtctctg
781 ggaagctcca tgaggataaa agtataaggg aacttcagga acaatcctgt acttacagca
841 aagcattctc ctcaatacct gaggtgaag ctggccttgc ctggaacaag ggttggtctc
901 cctcttttgg agaggaggag ggaggtgagg cctagagatgg ggaaaagggc tcctttcaag
961 acagcagtgt ttcctgtaga accctggagc cccctcccaa tctgtgctcc catagactcc
1021 aagcctcagc accatctcct ccctctcctg caccctctct cctgcctgcc ccatcttcca
1081 gcctttcttg agccaccaat ctggtaccca cattgcaggt tcagcaagca tagagctaa
1141 tgccaaatgc ttcttccag gggagatcat cggagccggg gagagcaggc cccactcccg
1201 cccctacatg gcgtatcttc agatccagag tccagcaggt cagagcagat gtggagggtt
1261 cctggtgcga gaagactttg tgctgacagc agctcattgc tggggaaggt gaggagctaa
1321 ggaacttctt ggccagccag gaacacagcc ctgctgagct cttcgggtga agagccatct
1381 gaaagaagag ttgtagcaat gaaagggtga aagaaagacc aagtgagtct ttgctggagg
1441 gaacaggcca gtgtaaatga ggaggaaagg aggataagat caaaaagagc aagagggaaga
1501 gatggaagac acatattggg gctcaaaata taaactcagg ctatttatca acttaatctg
1561 gggaagttaa cctgaaggca agtaccaccc tgtcatccct agctcagagc tgctgagaaa
1621 gaggatacag ctgagcccca gggccctccc atcccctcga ttctgggttag ctgcagctctt
1681 gccctccccg tgctgtctgc ctaccctgca gagctggtgg accatagctc ctgcagccca
1741 gacctacctc ttgcttttgc agcaatataa atgtcaccct gggcgccccc aatatccaga
1801 gcggggaaaa caccagcaa cacatcactg cgcgcagagc catccgccac cctcaatata
1861 atcagcggac catccagaat gacatcatgt tattgcaggt accacctacc tggccctctg
1921 gctccttctt agtgtgtccg gggacaatgg aggaggaagt gagggcaagg ctccggggtg
1981 gcggggaggg catgggatgt gtactgcacc agcgaccccc gagccttggc tggaggcccc
2041 agctgagcgg gaacgcctac attcttcttc cagctgagca gaagagtcag acggaatcga
2101 aacgtgaacc cagtggctct gcctagagcc caggagggac tgagaccggg gacgctgtgc
2161 actgtggccg gctggggcag ggtcagcatg agggagggaa cagatacact ccgagaggtg
2221 cagctgagag tgcagaggga taggcagtgc ctccgcatct tcggttcccta cgacccccga

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2281 aggcagattt gtgtggggga ccggcgggaa cgggaaggctg ctttcaaggt aaggcatggg
2341 cattggccaa cacaccccg gaggagggg cccgtgcaga gccaggcagt gcgaacagat
2401 tccatcccca cagcctcagc ctggcagcca gaccagggtg ggctggggat tgttttcccc
2461 atcaacctgg tctctggggg aataggagga agaccacaa cacatacata ggcaacattc
2521 tcctggagaa gggagaggta ccttgactca gattgggctg gagacagtaa ttaaggcaga
2581 gctgaagtcc agcgaccgaa aagatccaga ggcttggtc ctgtacccca ccgatcttcc
2641 atctcacaca caccagcaa ttgaaggggc ccacccacc ctgccttccc tgagagcccg
2701 gagctcaggg aagcaggagc agggaggcct gtctcagtct cccttctcct ctctacctac
2761 agggggattc cggaggcccc ctgctgtgta acaatgtggc ccacggcatc gtctcctatg
2821 gaaagtgcgc aggggttccct ccagaagtct tcaccagggt ctcaagtttc ctgccctgga
2881 taaggacaac aatgagaagc ttcaaactgc tggatcagat ggagaccccc ctgtgactga
2941 ctcttcttct cggggacaca ggccagctcc acagtgttgc cagagcctta ataaacgtcc
3001 acagagtata aataaccaat tcctcatttg ttcattaaac gtcattcagt acttagtttg
3061 tttggattgc tacaacaaaa tagcacaat tgggtggctt ataaataaca aatttatttc
3121 tcacaggtct agaggctaag aagtctaaga tcaagtcact agcagattca gtgtctaatt
3181 agggccattt ttctggttca cagacaacca tctctccct gtgtccacat atggcaaaag
3241 gggcaaggga attctctgat gtctctttta caaggacct agtctcattc aaagagctca
3301 gcttttacga cctaatacaca tcccaaaggc ccacactaat gccatcacga cattggggat
3361 taggtctggg aaacataggg aaagagtgtc tctacacaaa aattttaaaa ttagccaggc
3421 atggtggcat gtgtctatag tcccagctac ttggggaggc aaagtggaag gattagttag
3481 acccacgagg ttgaggcttc agtgaaccat gcactccagc ctgagcgaca gagcaagaca
3541 ccattccaag aaagaaaaaa aaaaagactg gcaggccaaa aagacagaac tgaaattcca
3601 aaaaaaaaga cctactttag tgtatgaaaa aggtggcatc tcaaatcact gggaacaat
3661 ggaatttttg aataaatagc attagaacca acctagatag atatttgag gggatggaag
3721 gtataattgg atcc

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(2) INFORMATION FOR SEQ ID NO:2828:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4683 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2828:

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1 agaagctttt gctcctggga ttaggttgat gggcctctaa tgtcaccagt gaaatgggat
61 attagatatt ttccagctag gatacgacag ctcccaataa aaccaaatta ctaagccttt
121 tctgcaagca aggagccgtc tggaacataa ggactttaac cttgggtagg agacaggcaa
181 gcagaagtct tcaatttgtt cacaattttc actgaggact caagtgcact aagaaagtaa
241 ttgtgattgt cagagccttg ttcttccctt tctttctcca gccgcacgct tcacctactc
301 aggagagtgc ctacgcaatc tgacttgaca gcttctagaa agaaattaga gcaacagggg
361 tctcagcagg gtggtcttgg gccaaacact gaaagcaggc aggccttacc ttctcttctc
421 tgcccccttc aactttttcc tgatgttctt acccacatcc ctcaccacac cacacccttt
481 cattcatcct tgtcccagac ttattaaagta tatacagata agcaatccag ggaacttgca
541 ttcattagga gaaacccaga aattcaaaag caataatgat ctaatcccag aggagtagaa
601 aacaggaaat gggcagctgc cagctttctt gctttgctgg agtattctgg aatttgatgg
661 gttgagggtt ctggacacaa tgccccaaag cccttccctt ttgtgctggg ttcttatttc
721 tgctctcggc actgacttag cagctgtctc agagctcact atgttggtct ggattacact
781 ggtctcacc acatctccgg cagtttgtgg gcaaacctcc tgagcagcct tgggtgatga
841 aacctttcat ggtagcagga gaatgggact gtgaattctc aatcccctgt cccaccctct
901 tccttccctc ctcagggcct taaagtctag gaggaggaag cacagcagcc ttgctttgct
961 ggagtattct ggtaatttga tgggttgagg gttctggaca caatgcccc agcccccttc
1021 ttgttggtgt ggttccctat ttctgctctc ggcactgact tagcagctgc tcaagagctc
1081 actatgttgg cttggattac acggtctcac ccacatctcc ggcagtttgt gggcaaacct
1141 cctgagcagc cttgggtgat gaaaccttcc atggtagcag gagaatggga ctgtgaattc
1201 tcaatccctc gtccccacc cttccttccct ctctcagggc cttaaagtct aggaggagga
1261 agcacagcag caactgactg ggcagccttt caggaaagat gcagccactc ctgcttctgc
1321 tggcctttct cctaccactt ggggtcaggg caggtgagtg accatcccca ccctcagagg
1381 cctgacctca tcccatagat tcttgagcca aattgccttg gtatatccta attctgtact
1441 gttgagcaag ttatttgaat ttgtgtttcc tcatctataa aatgagaata atattaatac
1501 cgatcttgca gagttgcat gagagttaaa taagttagag tatttaaagt tcttggaatt
1561 gccgcacac tataagtgtc ataaaaacat gctttgtgta aataatttgg cagcatgtgt
1621 cagaccctac ctaggaggta agaatacagc aataacagta ccatcagctc atgtctagat
1681 ttttaaacac cagtcaccag tggctttgaa ttggactcag agggctctgg gaagctccat

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1741 gaggataaaa gtataaggga acttcaggaa caatcctgta cttacagcaa agcattctcc
1801 tcaataacctg aggctgaagc tggccttgcc tggacaagg gttgttctcc ctcttttggg
1861 gaggaggagg gaggtgaggc ctaggatggg gaaaagggtc cctttcaaga cagcagtgtt
1921 tcctgtagaa ccctggagcc ccctcccaat ctgctgcccc atagactcca agcctcagca
1981 ccattctctc cctctctctc accctctctc ctgccgtccc catcttccag cctttctgga
2041 gccaccaatc tggtagccac attgcagggt cagcaagcat agagctaagt gccaaatgct
2101 tccttccagg ggagatcatc ggaggccggg agagcaggcc ccactccgc ccctacatgg
2161 cgtatcttca gatccagagt ccagcagggt agagcagatg tggagggttc ctggtgagag
2221 aagactttgt gctgacagca gctcattgct gggaagggtg aggagctaag gaacttcttg
2281 gccagccagg aacacagccc tgcggagctc ttcgggtgga gagccatctg aaagaagagt
2341 tgtagcaatg aaaggggtgaa agaaagacca agtgagtctt tgcgggaggg aacaggccag
2401 tgtaaatgag gaggaaaggga ggataaagtc aaaaagagca agaggaagag atggaagaca
2461 catattgggg ctcaaaatat aaactcaggc tatattatcaa cttaactctg ggaagtaaac
2521 ctgaaggcaa gtaccaccct gtcaccccta gctcagagct gctgagaaag aggatacagc
2581 tgagccccag gccctcccca tcccctcgat tctgggttagc tgcagtcttg ccctccccgt
2641 gctgtctgcc taccctgcag agctgggtga ccatagctcc tgcagcccag acctacctct
2701 tgcttttgca gcaatataaa tgtcaccctg ggcgcccaca atatccagag acgggaaaac
2761 acccagcaac acatcactgc gcgcagagcc atccgccacc ctcaatataa tcagcggacc
2821 atccagaatg acatcatgtt attgcaggta ccacctacct ggccctctgg ctccctccta
2881 gtgtgtccgg ggacaatgga ggaggaagtg agggcaaggc tccgggggtg cggggagggc
2941 atgggatgtg tactgcacca ggcacccccg agccttggtc ggaggcccca gctgagcggg
3001 aacgcctaca ttcttctccc agctgagcag aagagtcaga cggaatcgaa acgtgaacct
3061 agtggctctg cctagagccc aggagggact gagaccggg acgctgtgca ctgtggccgg
3121 ctggggcagg gtcagcatga ggagggaac agatacactc cgagaggtgc agctgagagt
3181 gcagagggat aggcagtgcc tccgcatctt cggttcctac gaccccccga ggcagatttg
3241 tgtgggggac cggcgggaac ggaaggctgc cttcaaggta aggcattggc attggccaac
3301 acaccccggg agagaggggc ccgtgcagag ccaggcagtg cgaacagatt ccacccccac
3361 agcctcagcc tggcagccag accagggtgg gctggggatt gttttcccca tcaacctggt
3421 ctctggggga ataggaggaa gaccacaaac acatacatag gcaacattct cctggagaag
3481 ggagaggtac cttgactcag attgggctgg agacagtaat taaggcagag ctgaagtcca
3541 gcgaccgaaa agatccagag gcttggtccc tgaacccac cgatcttcca tctcacacac
3601 acccagcaat tgaaggggcc caccacccc tgccttccct gagagcccgg agctcagga
3661 agcaggagca gggaggcctg tctcagtctc ccttctctc tctacctaca gggggattcc
3721 ggaggccccc tgctgtgtaa caatgtggcc cacggcatcg tctcctatgg aaagtcgtca
3781 ggggttctct cagaagtctt caccagggtc tcaagtttcc tgccctggat aaggacaaca
3841 atgagaagct tcaaaactgt ggatcagatg gagaccccc tgtgactgac tcttcttctc
3901 ggggacacag gccagctcca cagtgttgcc agagccttaa taaacgtcca cagagtataa
3961 ataaccaatt cctcatttgt tcattaaacg tcattcagta cttagtttgt ttggattgct
4021 acaacaaaat agcacaaatt ggggtggctt taaataacaa atttatttct cacagggtcta
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4141 tctgggtcac agacaacat cctctccctg tgtccacata tggcaaaagg ggcaaggga
4201 ttctctgatg tctcttttac aagggaacata gtctcattca aagagctcag cttttacgac
4261 ctaatcacat cccaaaggcc ccacctaatg ccatcacgac attggggatt aggtctggga
4321 aacataggga aagagtgtct ctacacaaaa attttaaaat tagccaggca tggtagcatg
4381 tgtctatagt cccagctact tgggaggcta aagtggagg attagttgaa cccacgaggt
4441 tgaggcttca gtgaaccatg cactccagcc tgagcgacag agcaagacac cattccaaga
4501 aagaaaaaaa aaaagactgg caggccaaaa agacagaact gaaattccaa aaaaaaagac
4561 ctactttagt gtatgaaaaa ggtggcatct caaatcactg ggaacaatg gaatttttga
4621 ataaatagca ttagaaccaa cctagataga tatttgagg ggatggaagg tataattgga
4681 tcc

(2) INFORMATION FOR SEQ ID NO:2829:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2829:

1 ggcacgagcc cagaaacaaa gacttcacgg acaaagtcctc ttggaaccag agagaagccg
61 ggatggaaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg
121 atgcaactcc gtgccagaag gtgaacgaga gggcctttgg ggcccaactg ctgccccctc

181 tgtactcctt ggtatttgtc attggcctgg ttggaaacat cctggtggtc ctggtccttg
241 tgcaatacaa gaggctaata aacatgacca gcatctacct cctgaacctg gccatttctg
301 acctgctctt cctgttcacg cttcccttct ggatcgacta caagtgaag gatgactggg
361 tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg
421 agatcttttt catcatcctg ctgacgattg acaggtaacct ggccatcgct cagcccggtg
481 ttgccttgcg ggcacggacc gtcacttttg gtgtcatcac cagcatcatc atttgggccc
541 tggccatctt ggcttccatg ccaggcttat acttttccaa gacccaatgg gaattcactc
601 accacacctg cagccttcac tttcctcagc aaagcctacg agagtgaag ctgtttcagg
661 ctctgaaact gaacctcttt gggctggtat tgcttttgtt ggtcatgac atctgctaca
721 cagggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccggt
781 tgatttttgt catcatgac atcttttttc tcttttgac ccctacaat ttgactatac
841 ttattttctgt tttccaagac ttcctgttca cccatgagtg tgagcagagc agacatttgg
901 acctggctgt gcaagtgcg gaggtgatcg cctacacgca ctgctgtgtc aaccagtgga
961 tctacgcctt cgttggtgag aggttccgga agtacctgag gcagttgttc cacaggcggt
1021 tggctgtgca cctggttaaa tggctccctt tctctccgt ggacaggctg gagagggtca
1081 gctccacatc tccctccaca ggggagcatg aactctctgc tgggttctga ctcagacat
1141 aggaggccaa cccaaaataa gcaggcgtag cctgccaggc acactgagcc agcagcctgg
1201 ctctcccagc caggttctga ctcttggcac agcatggagt cacagccact tgggatagag
1261 agggaatgta atggtggcct ggggctcttg aggttctctg ggttccagtc tttccatga
1321 acttctcccc tggtagaaag aagatgaatg agcaaaacca aatattccag agactgggac
1381 taagtgtacc agagaagggc ttggactcaa gcaagatttc agatttctga ccattagcat
1441 ttgtcaacaa agtcaccac tcccactat tgcttgaca aaccaattaa acccagtagt
1501 ggtgactgtg ggctccattc aaagtgcgct cctaagccat gggagacact gatgtatgag
1561 gaatttctgt tcttccatca cctccccccc cccgccaccc tcccactgcc aagaacttgg
1621 aaatagtgat ttccacagtg actccactct gactccaga gccaatcagt agccagcatc
1681 tgcctccctt tactccccc cgcaggattt gggctcttgg aatcctgggg aacatagaa
1741 tcatgacgga agagttaga cctaacgaga aatagaaatg ggggaactac tgcgtggcag
1801 ggaactaaga aagcccttag gaagaatttt tatatccact aaaatcaaac aattcagggg
1861 gtgggctaag cacgggcat atgaataaca tgggtgtgct cttaaaatag ccataaaggg
1921 gagggactca tcatttccat ttacccttct tttctgacta tttttcagaa tctctcttct
1981 tttcaagttg ggtgatagt tggtagattc taatggcttt attgcagcga ttaataacag
2041 gcaaaaggaa gcagggttgg ttcccttct tttgttctt catctaagcc tctcgggttt
2101 atgggtcaga gttccgactg ccatcttggg cttgtcagca aaaaaaaaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2830:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2955 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2830:

1 gagagccccc ccccgagac tgaaagtttt ggagattcag ggtcggggg aaagggttca
61 ggaagtgtga attgagtttc caaggatag tgttacaagt ggtatgggag gccccctatt
121 tctgatagta atagagaata ttttcttctg tcattatgat agaaccctg ggataaagag
181 ggaataaaa tgttgggagt ccccgagg agaggagaga atccaacagg gtgatttgc
241 gatatttcta cgaggaggga aagaattttt caaagacaaa gttggagtga ggagttttgg
301 tagagggaac caggtggggt acaagagag agacacactg agccggtggg aagggaagaa
361 ttaagagggg tgttccccc cactgtatat taagaaagaa aaacaatggg gacaggacgg
421 cagaagttag agtttcttaa ccaggatgag agggggattt cacggtaact aatgagtgat
481 ttcagacctt attccactat cccagggcaa tcagatatta atcatgtaca agttgaaatc
541 atgcgtgtcc tttgaggtaa gacttacata atcctattta gcataacagg ccccagatc
601 cagaaagggg agggttccgc ccctatcact gaaggggagc agggatagga aagtggctca
661 tgggtgacca tcacgtttta caggaatggg caatcaggag ggttaggtcc aattgtgacc
721 aacagaccaa acttccatta atgcttgcgg ttcttgtggc aaagccagtc tgtgaggttt
781 gatggggatg gacttggtag gcagagagca gggggacaac gaatccaga agctgagggg
841 aatgggggtc caaagagccg ctgctgcctc tgggagcacc catgtcagtt agtttttccg
901 tacgggactc agggttccag attattcggt tttaaatcct tccattcaca atctttaaga
961 agaagaaaaa aaagaagtct gccgtgacc acaagagctc tatgccctgc ccccatccca
1021 catcacacac tcccacactt caattgctcc aaacattctg ggaacatctc actgccaccc
1081 acctcaccca actcagcttc acctgcccc aattccctta aggtgagct cccagggcca
1141 agactcaaga ggctcagag gagcagagaa aatcctcgca gtttaacttg cttccaggaa
1201 gtggccactg gtgggcgttg tggccattca tgagcaccaa accacacaaa aagaacttgg

1261 tcccctttctt gtcattttga aagactgtga aactggagcc aattctccat catcacacag
1321 gaagctgagt acttcctact tggtcaggat cttgaaactt gaattcataa aaccagaaaa
1381 gccccagaaa caaagacttc acggacaaag tcccttggaa ccagagtaag tgtcacttgt
1441 cttttctgtc ttatctgtta ctgtggaggg cagtgttgtt caaagacatg catgcagcta
1501 ggggctcctc aaaggtaggg ggaattcttt gagtaggctg ggcaaatgtc taagtagccc
1561 atggatgcac ctccaaggca attaatctg tagcaatact gagaatggg gattataaaa
1621 gctgggtgct cagatgaaat ataggctttt ttgctaaaaa ggaagcttac ttgaaggatt
1681 ggcttttggg tactgattaa gaaagtcagt cagtactaag ggacaaaagg tgttttctgt
1741 ggaaacctat tcaataagaa attacttggc ggggcgcagt ggctcacggc tghtaatcca
1801 gcactttggg agaccgaggc aggtggatca tgaggtcaag agatggagac aatcctggcc
1861 atatggtgaa accctgtctc tactaaaaat aaaaattagc cgggcagggt gccgcagcct
1921 gttagtccca gctactcaag aggtcgaggc aggagaatca ctcgaaatcg ggaggtggag
1981 gttgcagtga gctgagattg caccacaaca ctccagcctg gcgacagagc aagagtctgt
2041 ctgaaaaaaa aaaattgctt gccaaattcc cccaagtaaa ggaaaaccaa acatggtgta
2101 tgaagaaatt atagcaagag ggaaatatta gctagaaaaa tcttggcaga tgcaaggatg
2161 atttgatact gaacctatct cttaagaaga ctagaaccaa ggatcctcaa aattggcact
2221 gctatctttg gaagagaggt aggcctttcac tcacccaagg gcaaggagct ggccagggtga
2281 tcttgggggg catctgttct gctctactaa caaagacaca ggtcaggatt ttgttctgaa
2341 gatagagggg catggtggct ccgtataggt atctacttca taggtggcct tgggtgggtcc
2401 cagatttcaa agaagagatg gaaactccca aaagtgttga caacctggca ccaggtatg
2461 tgccactcac tgatccttta gtccccgcac cgagcagtg gacagtgtg gactgttcag
2521 aatgtggggc ctgggcagtg atgtgctggt aaatgttcaa caactgactc ttctgaagaa
2581 aagatccctg ctttataaca ttgtttgatt ttcatgggat aaatgcccc actgtggtca
2641 gtttcaagct accaactatg tgaatgtgga gtggggaaga gatgcacgca attggcattt
2701 ataaaccagt ataagccagc cagcgaccca taggcctggg tgtctttcac catcacagac
2761 tgctctactc tgctcagaga ctaccaact cccaggtctg aagacactag cagtgggaag
2821 tccaggatcc agggctatac tgaccactgt gccagtggcc ttgaggcaga ctctgcagta
2881 gacaacanc caggctggcc nattagatga caacatgncc ttggtcctc tcgggcccac
2941 cccagacacc tcctg

(2) INFORMATION FOR SEQ ID NO:2831:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1495 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2831:

1 atggaaactc caaacaccac agaggactat gacacgacca cagagtttga ctatggggat
61 gcaactccgt gccagaaggt gaacgagagg gcctttgggg cccaactgct gcccctctg
121 tactccttgg tatttgcata tggcctgggt ggaaacatcc tgggtggcct ggtccttgg
181 caatacaaga ggctaaaaaa catgaccagc atctacctcc tgaacctggc catttctgac
241 ctgctcttcc tgttcacgct tcccttctgg atcgactaca agttgaagga tgactgggtt
301 ttgggtgatg ccatgtgtaa gatcctctct gggttttatt acacaggcct gtacagcgag
361 atctttttca tcatcctgct gacgattgac aggtacctgg ccatcgcca cgccgtgtt
421 gccttgccgg caccgaccgt cacttttggg gtcacacca gcatcatcat ttgggccctg
481 gccatcttgg cttccatgcc aggccttatac tttccaaga cccaatggga attcactcac
541 cacacctgca gccttcactt tccctacgaa agcctacgag agtgggaagc gtttcaggct
601 ctgaaactga acctctttgg gctggtattg cctttgttgg tcatgatcat ctgctacaca
661 gggattataa agattctgct aagacgacca aatgagaaga aatccaaagc tgtccgtttg
721 atttttgtca tcatgatcat cttttttctc ttttggaccc cctacaattt gactatactt
781 atttctgttt tccaagactt cctgttcacc catgagtgtg agcagagcag acatttggac
841 ctggctgtgc aagtgcgga ggtgatcgcc tacacgcact gctgtgtcaa cccagtgtc
901 tacgccttcg ttggtgagag gttccggaag tacctgcggc agttgttcca caggcgtgtg
961 gctgtgcacc tgggttaaat gctcccttc ctctccgtgg acaggctgga gagggtcagc
1021 tccacatctc cctccacagg ggagcatgaa ctctctgctg ggttctgact cagaccatag
1081 gagggcaacc caaataagc aggcgtgacc tgccaggcac actgaccagc agcctggctc
1141 tcccagccag gttctgactc ttggcacagc atggagtcgg cctcttggat agagaggaa
1201 gtaatggtgg cctggggctt ctgaggcttc tgggcttgag tcttttccat gaacttctcc
1261 cctggttagaa aagaagatga atgagcaaaa ccaaatatc cagagactgg gactaagtgt
1321 accagagaag ggcttgact caagcaagat ttcagatttg tgaccattag catttgtcaa
1381 caaagtcacc cacttccac tattgcttgc acaaccaat taaaccagc agtgggtgact
1441 gtgggctcca ttcaaagtga gctcctaagc catgggagac actgatgtat gagga

(2) INFORMATION FOR SEQ ID NO:2832:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6606 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2832:

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1 ggcacgagcc cagaaacaaa gacttcacgg acaaagtcce ttggaaccag agagaagccc
61 ggatggaaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg
121 atgcaactcc gtgccagaag gtgaacgaga gggcctttgg ggcccaactg ctgccccctc
181 tgtactcctt ggtatttgtc attggcctgg ttggaacat cctggtggtc ctggtccttg
241 tgcaatacaa gaggctaaaa aacatgacca gcatctacct cctgaacctg gccattttctg
301 acctgctctt cctgttcacg ctccctctct ggatcgacta caagtgaag gatgactggg
361 tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg
421 agatcttttt catcatcctg ctgacgattg acaggtaacct ggccatcgtc cacgcccgtgt
481 ttgccttgcg ggcacggacc gtcacttttg gtgtcatcac cagcatcatc atttgggccc
541 tggccatctt ggcttccatg ccaggcttat acttttccaa gacccaatgy gaattcactc
601 accacacctg cagccttcac tttcctcagc aaagcctacg agagtgaag ctgtttcagg
661 ctctgaaact gaacctcttt gggctggtat tgcctttggt ggtcatgac atctgctaca
721 cagggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt
781 tgatttttgt catcatgac atcttttttc tcttttgac ccctacaaat ttgactatac
841 ttatttctgt tttccaagac ttctgttca ccatgagtg tgagcagagc agacatttgg
901 acctggctgt gcaagtacg gaggtgatcg cctacacgca ctgctgtgtc aaccagtgta
961 tctacgcctt cgttggtgag aggttccgga agtacctgcy gcagttgttc cacaggcgtg
1021 tggctgtgca cctggttaaa tggctccctt tctctccgt ggacaggctg gagagggtca
1081 gctccacatc tccctccaca ggggagcatg aactctctgc tgggttctga ctacagaccat
1141 aggaggccaa cccaaaataa gcaggcgtga cctgccaggc aactgagcc agcagcctgg
1201 ctctcccage caggttctga ctcttgacac agcatggagt cacagccact tgggatagag
1261 agggaaatga atgttgccct ggggcttctg aggcttctgg ggcttcagtc tttccatga
1321 acttctcccc tggtagaaag aagatgaatg agcaaaacca aatattccag agactgggac
1381 taagtgtacc agagaagggc ttggactcaa gcaagatttc agatttgtga ccattagcat
1441 ttgtcaacaa agtccccac ttcctactat tgcttgaca aaccaattaa acccagtagt
1501 ggtgactgtg ggctccattc aaagttagct cctaagccat gggagacact gatgtatgag
1561 gaatttctgt tcttccatca cctcccccce ccgcacccc tccactgcc aagaacttgg
1621 aaatagtgat ttccacagtg actccactct gactccaga gccaatcagt agccagcatc
1681 tgcctcccct tcaactccac cgcaggattt gggctcttgg aatcctggg aacatagaac
1741 tcatgacgga agagttaga cctaacgaga aatagaaatg ggggaactac tgctggcagt
1801 ggaactaaga aagcccttag gaagaatttt tatatccact aaaatcaaac aattcaggga
1861 gtgggctaag cacgggccat atgaataaca tgggtgtgctt cttaaaatag ccataaagg
1921 gagggactca tcatttccat ttacccttct tttctgacta tttttcagaa tctctcttct
1981 ttcaagttg ggtgatagt tggtagattc taatggcttt attgcagcga ttaataacag
2041 gcaaaaggaa gcagggttgg tttcccttct tttgttctt catctaagcc tctgtgtttt
2101 atgggtcaga gttccgactg ccactttgga ctgttcagca aaaaaaaaaa aaaaaagaga
2161 gccccccccc cgagactgaa agttttggag attcaggggt cgggggaaag ggttcaggaa
2221 atggttaattg agtttccaag ggatagtgtt acaagtggta tgggaggccc cctatttctg
2281 atagtaatag agaataattt cttgttcat tatgatagaa cccgtgggat aaagagggaa
2341 aataaatgtt gggagtcccc caggggagag gagagaatcc aacagggtga tttgctgata
2401 tttgtacgag gagggaaaga atttttcaaa gacaaagttg gagttaggag tttttgtaga
2461 ggaaccaggy tgggtacaaa agagagagac aactgagcc ggtgggaaag gaagaattaa
2521 gaggggtgtt ccccccact gtatattaag aaagaaaaac aatggggaca ggacggcaga
2581 agtttagatt tcttaaccag gatgagaggg ggatttcacg taactaatg agtgatttca
2641 gaccttattc cactatccca gggcaatcag atattaatcat gtacaagtt gaaatcatgc
2701 gtgtcctttg aggttaagact tacataatcc tatttagcat aacaggcccc cagatccaga
2761 aaggggaggy ttccgcccct atcactgaag gggatcaggg atatgaaagt ggctcatggt
2821 tgaccatcac gtttaacagg aatgggcaat caggaggggt aggtccaatt gtgaccaaca
2881 gaccaaactt ccattaatgc ttgcggttct tgtggcaag ccagtctgtg aggtttgatg
2941 gggatggact tggtagcag agagcagggg gacaacgaat ccagaaagct gaggggaatg
3001 gggttccaaa gagcgcgtgc tgcctctggg agcaccatg tcagttagtt tttccgtacg
3061 ggaactcaggy ttccagatta ttctgtttta aatccttcca ttcacaatct ttaagaagaa
3121 gaaaaaaaag aagtctgccg ctgaccacaa gagctctatg ccttgcctcc atcccacata
3181 cacacatccc acacttcaat tgctccaaac attctgggaa catctcactg ccaccacct
```

3241 caccceaacctc agcttcacct gcccccaatt cecttaaggc tgagctccca gggccaagac
3301 tcaagaggct cagagtgcagc agagaaaaatc ctgcaggtta acttggtctc caggaagtgg
3361 ccactgggtgg gcgttgtggc cattcatgag caccaaacca caaaaaaga actttgtccc
3421 tttctgtgca ttttgaaaga ctgtgaaact ggagccaatt ctccatcatc acacaggaag
3481 ctgagtactt cctacttggt caggatcttg aaacttgaat tcataaaacc cagaaagccc
3541 cagaaacaaa gacttcacgg acaaagtccc ttggaaccag agtaagtgtc acttgtcttt
3601 tctgtcttat ctgttactgt ggagggcagt gttgttcaaa gacatgcagc cagctagggg
3661 ctctcctaaag gtatgggggaa ttctttgagt aggctgggca aatgtctaa gtagcccatg
3721 atgcactctc aaggcaatta atactgtagc aatactgaga atgggtgatt tataaagctg
3781 ggtgctcaga tgaatatag gcttttttgc taaaaaggaa gcttacttga aggattggct
3841 tttggttact gattaagaaa gtcagtcagt actaagggac aaaaggtgtt ttctgtggaa
3901 acctattcaa taagaaatta cttggcgggg gcagctggct caccgctgta atcccagcac
3961 tttgggagac cgaggcaggt ggatcatgag gtcaagagat ggagacaatc ctggccatat
4001 ggtgaaaccc tgtctctact aaaaataaaa attagccggg cagggtggcg cagcctgtta
4061 gtcccagcta ctcaagaggc tgaggcagga gaatcactcg aatccgggag gtggaggttg
4121 cagtgcagct agattgcacc acaactctcc agcctggcga cagagcaaga gtctgtctga
4181 aaaaaaaaaa ttgcttgcca aattccccc agtaaaaggaa aaccaaacat ggtgtatgaa
4241 gaaattatag caagagggaa atattagcta gaaaaatctt ggcagatgca aggatgattt
4301 gatactgaac ctatctctta agaagactag aaccaaggat cctcaaaatt ggcactgcta
4361 tcttttgaa agaggttaggc ttctactcac ccaaaaggcaa ggagctggcc aggtgatctt
4421 ggggggcate tgttctgctc tactaacaata gacacaggtc aggattttgt tctgaagata
4481 gaggggcagt gtggctccgt atagttatct acttcatagg tggccttggt ggttccaga
4541 ttcaaaagaa gagatggaaa ctcccaaaag ttgtcacaac ctggcaccag gctatgtgcc
4601 actcactgat cctttagtcc ccgcaccgag cagtgggaca gtgctggact gttcagaatg
4661 tggggcctgg gcagtgatgt gctggtaaat gttcaacaac tgactcttct gaagaaaaga
4721 tccctgcttt ataacatttg ttgattttca tgggtataat gcccactctg tgggtcagttt
4781 caagctacca acatgctgaa ttgtgagtg ggaagagatg caccgaattg gcatttataa
4841 accagtataa gccagccagc gcaccatagg cctgggtgtc ttccaccatc acagactgct
4901 ctactctgct cagagactca ccaactccca ggctggaaga cactagcagt ggaaggtcca
4961 ggatccaggg ctatactgac cactgtgcca gtggccttga ggcagactct gcagtagaca
5021 acanccaggg ctggccnatt agatgacaac atgnccttgg tccctctcgg gcccaaccca
5081 gacacctct ctggaact ccaaacacca cagaggacta tgacacgacc acagagtttg
5141 actatgggga tgcaactccg tgccagaagg tgaacgagag ggcctttggg gcccaactgc
5201 tgccccctct gtactccttg gtatttgtca ttggcctggg tggaaacatc ctggtgttcc
5261 tggctccttg gcaatacaag aggtcaaaaa acatgaccag catctacctc ctgaacctgg
5341 ccatttttga cctgctcttc ctgttcacgc ttcccttctg gategactac aagttgaagg
5401 atgactgggt ttttgggtat gccatgtgta agatcctctc tgggttttat tacacaggct
5461 tgtacagcga gatcttttcc atcatcctgc tgacgattga caggtacctg gccatcgtcc
5521 acgccgtgtt tgcccttgcg gcacggaccg tcacttttgg tgtcatcacc agcatcatca
5581 tttgggccct ggccatcttg gcttccatgc caggcttata cttttccaag acccaatggg
5641 aattcactca ccacacctgc agccttcaact ttectcacga aagcctacga gagtgggaagc
5701 tgtttcaggc tctgaaactg aacctctttg ggctggtatt gcctttgttg gtcatgatca
5761 tctgctacac agggattata aagattctgc taagacgacc aaatgagaag aaatccaaag
5821 ctgtccgttt gatttttgtc atcatgatca tcttttttct cttttggacc ccctacaatt
5881 tgactatact tatttctgtt ttccaagact tectgttca ccatgagtggt gagcagagca
5941 gacatttggg cctggctgtg caagtgcagg aggtgatcgc ctacacgcac tgcgtgttca
6001 acccagtgat ctacgccttc gttggtgaga ggttcgggaa gtacctgcgg cagttgttcc
6061 acaggcgtgt ggtgtgtcac ctggttaaat ggctccctt cctctccgtg gacaggctgg
6121 agagggtcag ctccacatct cctccacag gggagcatga actctctgct gggttctgac
6181 tcagaccata ggaggccaac ccaaaataag caggcgtgac ctgccaggca cactgaccag
6241 cagcctggct ctcccagcca ggttctgact cttggcacag catggagtcc gctcttggg
6301 tagagaggaa tgtaatgtg gctggggct tctgaggctt ctgggcttga gtcttttcca
6361 tgaacttctc cctgggtaga aaagaagatg aatgagcaaa accaaatatt ccagagactg
6421 ggaactaagt taccagagaa gggcttgac tcaagcaaga tttcagattt gtgaccatta
6481 gcatttgtca acaaaagtcac ccaattccca ctattgcttg cacaaccaa ttaaaccag
6541 tagtggtagc tgtgggctcc attcaaagt agctcctaag ccatgggaga cactgatgta
6601 tgagga

(2) INFORMATION FOR SEQ ID NO:2833:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1068 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2833:

```

1 atgacaacct cactagatac agttgagacc tttggtacca cactactacta tgatgacgtg
61 ggcctgctct gtgaaaaagc tgataccaga gcactgatgg cccagtttgt gcccccgctg
121 tactccctgg tgttcaactgt gggcctcttg ggcaatgtgg tgggtggtgat gatcctcata
181 aaatacagga ggctccgaat tatgaccaac atctacctgc tcaacctggc catttcggac
241 ctgctcttcc tctgaccctc tccattctgg atccactatg tcagggggca taactgggtt
301 tttggccatg gcatgtgtaa gtcctctca gggttttatc acacaggctt gtacagcgag
361 atctttttca taatcctgct gacaatcgac aggtacctgg ccattgtcca tgctgtgttt
421 gcccttcgag cccggactgt cacttttggg gtcacaccca gcatcgtcac ctggggcctg
481 gcagtgttag cagctcttcc tgaatttatc ttctatgaga ctgaagagtt gtttgaagag
541 actcttttga gtgctcttta cccagaggat acagtatata gctggaggca tttccacact
601 ctgagaatga ccactctctg tctcgttctc cctctgctcg ttatggccat ctgctacaca
661 ggaatcatca aaacgctgct gaggtgcccc agtaaaaaaa agtacaaggc catccggctc
721 atttttgtca tcatggcggg gtttttcatt ttctggacac cctacaatgt ggctatcctt
781 ctctcttctc atcaatccat cttatttggg aatgactgtg agcggagcaa gcatctggac
841 ctgggtcatg tggtgacaga ggtgatcgcc tactccactc gctgcatgaa cccggtgatc
901 tacgcctttg ttggagagag gttccggaag tacctgcgcc acttcttcca caggcacttg
961 ctcatgcacc tgggcagata catcccattc ctctctagtg agaagctgga aagaaccagg
1021 tctgtctctc catccacagc agagccggaa ctctctattg tgttttag

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(2) INFORMATION FOR SEQ ID NO:2834:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1201 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2834:

```

1 tttttcttct tctatcacag ggagaagtga aatgacaacc tcactagata cagttgagac
61 ctttgggtacc acatcctact atgatgacgt gggcctgctc tgtgaaaaag ctgataccag
121 agcactgatg gccagtttg tgccccgctc gtactccctg gtgttcaact tgggcctctt
181 gggcaatgtg tgggtggtga tgatcctcat aaaatacagg aggtccgaa ttatgaccaa
241 catctacctg ctcaacctgg ccatttcgga cctgctcttc ctctcacc cttcattctg
301 gatccactat gtcagggggc ataactgggt ttttggccat ggcatgtgta agctcctctc
361 agggttttat cacacaggct tgtacagcga gatcttttcc ataactcctg tgacaatcga
421 cagggtacctg gccattgtcc atgctgtgtt tgcccttcga gcccgactg tcacttttgg
481 tgtcatcacc agcatcgta cctggggcct ggcagtgtga gcagctcttc ctgaatttat
541 cttctatgag actgaagagt tgttgaaga gactctttgc agtgctcttt acccagagga
601 tacagtatat agctggaggc atttccacac tctgagaatg accatcttct gtctcgttct
661 ccctctgctc gttatggcca tctgtacac aggaatcacc aaaacgctgc tgaggtgccc
721 cagtaaaaaa aagtacaagg ccatccggct cattttgtc atcatggcgg tgttttcat
781 tttctggaca ccctacaatg tggtatcctc tctctcttcc tatcaatcca tcttatttgg
841 aaatgactgt gagcggagca agcatctgga cctggtcatg ctggtgacag aggtgatcgc
901 ctactccac tgctgcatga accgggtgat ctacgccttt gttggagaga gggtccggaa
961 gtacctgcgc cacttcttcc acaggcactt gctcatgcac ctgggcagat acatcccatt
1021 ctttcttagt gagaagctgg aaagaaccag ctctgtctct ccatccacag cagagccgga
1081 actctctatt gtgttttagg tcagatgcag aaaattgcct aaagaggaag gaccaaggag
1141 atgaagcaaa cacattaagc ctccacact cacctctaaa acagtccttc aaacttccag
1201 t

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(2) INFORMATION FOR SEQ ID NO:2835:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1689 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2835:

```

1 aatccttttc ctggcacctc tgatatcctt ttgaaattca tgttaaagaa tccctaggct
61 gctatcacat gtggcatctt tgttgagtac atgaataaat caactgggtg gttttacgga
121 ggatgattat gcttcattgt gggattgtat ttttcttctt ctatcacagg gagaagtga
181 atgacaacct cactagatac agttgagacc tttggtacca cactactacta tgatgacgtg

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241 ggccctgctct gtgaaaaagc tgataaccaga gcaactgatgg cccagtttgt gcccccgctg
301 tactccctgg tgttcactgt gggcctcttg ggcaatgtgg tgggtggtgat gatcctcata
361 aaatacagga ggctccgaat tatgaccaac atctacctgc tcaacctggc catttcggac
421 ctgctcttcc tegtaccct tccattcttg atccactatg tcagggggca taactgggtt
481 tttggccatg gcatgtgtaa gctcctctca gggttttatc acacaggctt gtacagcgag
541 atctttttca taatcctgct gacaatcgac aggtacctgg ccattgtcca tgcgtgtgtt
601 gcccttcgag cccggactgt cacttttggg gtcacacca gcacgtcac ctggggcctg
661 gcagtgttag cagctcttcc tgaatttatc ttctatgaga ctgaagagtt gtttgaagag
721 actctttgca gtgctcttta cccagaggat acagtatata gctggaggca tttccacact
781 ctgagaatga ccactcttctg tctcgttctc cctctgctcg ttatggccat ctgctacaca
841 ggaatcatca aaacgtgctg gaggtgcccc agtaaaaaaa agtacaaggc catccggctc
901 atttttgtca tcatggcggt gtttttcatt ttctggacac cctacaatgt ggctatcctt
961 ctctcttctc atcaatccat cttatttggg aatgactgtg agcggacgaa gcactctggac
1021 ctggtcatgc tgggtacaga ggtgatcgcc tactcccaact gctgcatgaa cccggtgatc
1081 tacgcctttg ttggagagag gttccggaag tacctgcgcc acttcttcca caggcacttg
1141 ctcatgcacc tgggcagata catccatttc cttctagtgt agaagctgga aagaaccagc
1201 tctgtctctc catccacagc agagccggaa ctctctattg tgttttaggt agatgcagaa
1261 aattgcctaa agaggaagga ccaaggagat naagcaaaca cattaagcct tccacactca
1321 cctctaaaac agtcttcaa accttccagt gcaacactga agctcttaag aactgaaat
1381 atacacacag cagtagcagt agatgcatgt accctaaggt cattaccaca ggccagggtc
1441 gggcagcgta ctcatcatca acctaaaaag cagagctttg cttctctctc taaaatgagt
1501 tacttatatt ttaatgcacc tgaatgttag atagtacta tatgccgcta caaaaaggta
1561 aaacttttta tattttatac attaacttca gccagctatt atataaataa aacattttca
1621 cacaatacaa taagttaact attttatttt ctaatgtgcc tagttctttc cctgcttaat
1681 gaaaagctt

(2) INFORMATION FOR SEQ ID NO:2836:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3958 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2836:

1 ctgacaacct cactagatac agttgagacc tttgtacca catcctacta tgatgacgtg
61 ggccctgctct gtgaaaaagc tgataaccaga gcaactgatgg cccagtttgt gcccccgctg
121 tactccctgg tgttcactgt gggcctcttg ggcaatgtgg tgggtggtgat gatcctcata
181 aaatacagga ggctccgaat tatgaccaac atctacctgc tcaacctggc catttcggac
241 ctgctcttcc tegtaccct tccattcttg atccactatg tcagggggca taactgggtt
301 tttggccatg gcatgtgtaa gctcctctca gggttttatc acacaggctt gtacagcgag
361 atctttttca taatcctgct gacaatcgac aggtacctgg ccattgtcca tgcgtgtgtt
421 gcccttcgag cccggactgt cacttttggg gtcacacca gcacgtcac ctggggcctg
481 gcagtgttag cagctcttcc tgaatttatc ttctatgaga ctgaagagtt gtttgaagag
541 actctttgca gtgctcttta cccagaggat acagtatata gctggaggca tttccacact
601 ctgagaatga ccactcttctg tctcgttctc cctctgctcg ttatggccat ctgctacaca
661 ggaatcatca aaacgtgctg gaggtgcccc agtaaaaaaa agtacaaggc catccggctc
721 atttttgtca tcatggcggt gtttttcatt ttctggacac cctacaatgt ggctatcctt
781 ctctcttctc atcaatccat cttatttggg aatgactgtg agcggacgaa gcactctggac
841 ctggtcatgc tgggtacaga ggtgatcgcc tactcccaact gctgcatgaa cccggtgatc
901 tacgcctttg ttggagagag gttccggaag tacctgcgcc acttcttcca caggcacttg
961 ctcatgcacc tgggcagata catccatttc cttctagtgt agaagctgga aagaaccagc
1021 tctgtctctc catccacagc agagccggaa ctctctattg tgttttag
1069 tttttcttct tctatcacag ggagaagtga aatgacaacc tcaactagata cagttgagac
1129 ctttgggtacc acatcctact atgatgacgt gggcctgctc tgtgaaaaag ctgataaccag
1189 agcactgatg gccagtttg tgccccgct gtaactcctg gtgttactg tgggctctt
1249 gggcaatgtg tgggtggtga tgatcctcat aaaatacagg aggtccgaa ttatgaccaa
1309 catctacctg ctcaacctgg ccatttcgga cctgctcttc ctctcacc tccattctg
1369 gatccactat gtcagggggc ataactgggt ttttgccat ggcagtgtga agctcctctc
1429 agggttttat cacacaggct tgcacagcga gatcttttc ataactcctg tgacaatcga
1489 caggtaacct gccattgtcc atgctgtgtt tgcccttcga gccggactg tcacttttg
1549 tgtcatcacc agcatcgta cctggggcct ggcagtgtga gcagctcttc ctgaatttat
1609 cttctatgag actgaagagt tgtttgaaga gactctttgc agtgctcttt acccagagga
1669 tacagtatat agctggaggc atttccacac tctgagaatg accatcttct gtctcgttct

1729 cccctctgctc gttatggcca tctgctacac aggaatcatc aaaacgctgc tgagggtgcc
1789 cagtaaaaaa aagtacaagg ccatccggct catTTTTgtc atcatggcgg tgtttttcat
1849 tttctggaca ccctacaatg tggctatcct tctctcttcc tatcaatcca tcttatttgg
1909 aaatgactgt gagcggagca agcatctgga cctgggtcatg ctgggtgacag aggtgatcgc
1969 ctactcccac tgctgcatga acccggtgat ctacgccttt gtgggagaga ggttccggaa
2029 gtacctgctc cacttcttcc acaggcactt gctcatgcac ctgggcagat acatcccat
2089 ccttctctgt gagaagctgg aaagaaccag ctctgtctct ccatccacag cagagccgga
2149 actctctatt gtgttttagg tcagatgcag aaaattgcct aaagaggaa gaccaaggag
2209 atgaagcaaa cacattaagc cttccacact cacctctaaa acagtccttc aaacttccag
2269 t
2270 aatccttttc ctggcacctc tgatatcctt ttgaaattca tgttaaagaa tccctagget
2330 gctatcacat gtggcatctt tgttgagtac atgaataaat caactggtgt gttttacgga
2390 ggaatgattat gcttcattgt gggattgtat ttttcttctt ctatcacagg gagaagttaa
2450 atgacaacct cactagatac agttgagacc ttgttgacca catcctacta tgatgacgtg
2510 ggctgctctc gtgaaaaagc tgataccaga gcactgatgg cccagtttgt gccccgcctg
2570 tactccctgg tgttcaactgt gggcctcttg ggcaatgtgg ttgtgtgtat gatactcata
2630 aaatacagga ggctccgaat tatgaccaac atctacctgc tcaacctggc catttccgac
2690 ctgctcttcc tcgtcacctt tccattctgg atccactatg tcagggggca taactgggtt
2750 ttgggcatg gcattgttaa gctcctctca ggggtttatc acacaggctt gtacagcgag
2810 atctttttca taatcctgct gacaatcgac aggtacctgg ccattgtcca tgctgtgttt
2870 gcccttcgag cccggactgt cacttttggg gtcacacca gcacgtcac ctggggcctg
2930 cgagtgtctg cagctcttcc tgaatttata ttctatgaga ctgaagagtt gtttgaagag
2990 actctttgca gtgctcttta cccagaggat acagtatata gctggaggca tttccacact
3050 ctgagaatga ccactctctg tctcgttctc cctctgctcg ttatggccat ctgctacaca
3110 ggaatcatca aaacgctgct gaggtgcccc agtaaaaaaa agtacaaggc catccggctc
3170 atttttgtca tcatggcggt gtttttcatt ttctggacac cctacaatgt ggctatcctt
3230 ctctcttctc atcaatccat cttatttggg aatgactgtg agcggacgaa gcatctggac
3290 ctggctcatg tgggtgacaga ggtgatcgcc tactcccaact gctgcatgaa cccggtgatc
3350 tacgcctttg ttggagagag gttccggaag tacctgcgcc acttcttcca caggcacttg
3410 ctcatgcacc tgggcagata catcccattc cttcctagtg agaagctgga aagaaccagc
3470 tctgtctctc catccacagc agagccggaa ctctctattg tgttttaggt agatgcagaa
3530 aattgcctaa agaggaagga ccaaggagat naagcaaaaca cattaagcct tccacactca
3590 cctctaaaac agtctctcaa accttccagt gcaacactga agctcttaag aactgaaat
3650 atacacacag cagtgcagc agatgcatgt accctaaggt cattaccaca ggccagggtc
3710 gggcagcgta ctcatcatca acctaaaaag cagagctttg cttctctctc taaaatgagt
3770 taactattct ttaatgcacc tgaatgttag atagttacta tatgccccta caaaaaggta
3830 aaacttttta tattttatca attaaactca gccagctatt atataaataa aacattttca
3890 cacaatacaa taagttaact attttatttt ctaatgtgcc tagttctttc cctgcttaat
3950 gaaaagctt

(2) INFORMATION FOR SEQ ID NO:2837:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2961 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2837:

1 tctagagcca aggtcacgga agcccagagg gcactctgtg gctcgggagt agctctctgc
61 tgtcttctca gctctgctga caatacttga gattttcaga tgtcaccaac caccaagaga
121 gcttgatatg actgtatata gtatagtcac aaagaacctg aacttgacca tatacttatg
181 tcatgtggaa aatttctcat agcttcagat agattatata tggagtgaag aatcctgcc
241 cctatgtatc tggcatagtg tgagtcctca taaatgctta ctgggttgaa gggcaacaaa
301 atagtgaaca gagtgaataa cccactaag atcctgggtc cagaaaaaga tgggaaacct
361 gtttagctca cccgtgagcc catagttaaa actctttaga caacaggttt tttccgttta
421 cagagaacaa taatatggg tggtagcat ctgtgtggg gttggggtg gataggggat
481 acggggagag tggagaaaaa gggggcacag ggttaatgtg aagtcaggga tccccctcta
541 catttaaggt tggtttaagt tggctttaat taatgcaac tcttaagata atcagaattt
601 tcttaacctt ttagccttac tgttgaaga cctgtgatc ttgtacaaat catttgcttc
661 ttgtagtagt atttctttta ctaaaatgtg ggcttttgac tagatgaatg taaatgttct
721 tctagctctg atatccttta ttctttatat ttcttaacag attctgtgta gtgggatgag
781 cagagaacaa aaacaaaata atccagttag aaaagcccg aaataaactt tcagaccaga
841 gatctattct ctagcttatt ttaagctcaa cttaaaagga agaactgttc tctgattctt

901 ttgcgccttca atacacttaa tgatttaact ccaccctcct tcaaaagaaa cagcatttcc
 961 tactttttata ctgtctatat gattgatttg cacagctcat ctggccagaa gagctgagac
 1021 atccgttccc ctacaagaaa ctctccccgg taagtaacct ctcagctgct tggcctgtta
 1081 gttagcttct gagatgagta aaagacttta caggaaaccc atagaagaca ttgggcaaac
 1141 accaagtgcct catacaatta tcttaaaata taatctttaa gataaggaaa gggtcacagt
 1201 ttggaatgag ttccagacgg ttataacatc aaagatacaa aacatgattg tgagtgaag
 1261 actttaaagg gagcaatagt attttaataa ctaacaatcc ttacctctca aaagaaagat
 1321 ttgcagagag atgagtctta gctgaaatct tgaaatctta tcttctgcta aggagaacta
 1381 aacctctctc agtgagatgc cttctgaata tgtgcccaca agaagttgtg tctaagcttg
 1441 gttctctttt ttctttttcc tccagacaag aggggaagcct aaaaatggtc aaaaattaata
 1501 ttaaattaca aacgccaaat aaaattttcc tctaataatc cagtttcatg gcacagttag
 1561 tatataattc tttatgggtc aaaattaaaa atgagctttt ctaggggctt ctctcagctg
 1621 cctagtctaa ggtgcaggga gtttgagact cacagggttt aataagagaa aattctcagc
 1681 tagagcagct gaacttaaat agactaggca agacagctgg ttataagact aaactaccca
 1741 gaatgcataa cattcatctg tgggtggcaga cgaacattt tttattatat tatttcttgg
 1801 gtatgtatga caactcttaa ttgtggcaac tcaaaactaca aacacaaact tcacagaaaa
 1861 tgtgaggatt ttacaattgg ctgttgctat ctatgacctt cctggggact tgggccccg
 1921 gccatttcac tctgactaca tcatgtcacc aaacatctga tgggtcttgc ttttaattct
 1981 ctttttgagg actgagaggg agggtagcat ggtagttaag agtgcaggct tcccgcattc
 2041 aaaatcgggt gcttactagc tgtgtggcct tgagcaagtt actcaccctc tctgtgcttc
 2101 aagggtcctg tctgcaaaat gtgaaaaata tttctgcct cataaggttg ccctaaggat
 2161 taaatgaatg aatgggtatg atgcttagaa cagtgattgg catccagtat gtgccctcga
 2221 ggcctcttaa ttattactgg cttgctcata gtgcatgttc tttgtgggct aactctagcg
 2281 tcaataaaaa tgtaagact gagggtgcagc tgggcatggt ggctcatgcc tgtaatccca
 2341 gcattctagg aggctgaggc aggaggatcg cttgagccca ggagttcgag accagcctgg
 2401 gcaacatagt gtgatcttgt atctataaaa ataaacaaaa ttagcttggg gtggtggcgc
 2461 ctgtagctcc cagccacttg gaggggtgag gtgagaggat tgcttgagcc cgggatgatc
 2521 caggctgcag tgagccatga tctgtccact gcactccagc ctgggcgaca gaggtagacc
 2581 ctgtctcaca acaacaacag caacaaaaag gctgagctgc accatgcttg acccagtttc
 2641 ttaaaattgt tgtcaaaagt tcattcactc catggtgcta tagagcacia gattttattt
 2701 ggtgagatgg tgctttcatg aattccccca acagagccaa gctctccatc tagtgagacg
 2761 ggaagctagc agcaaacctt ccttcacta caaaacttca ttgcttggcc aaaaagagag
 2821 ttaattcaat gttagacatc atgtaggcaa ttaaaaacct attgatgtat aaaacagttt
 2881 gcattcatgg agggcaacta aatacattct aggactttat aaaagatcac tttttattta
 2941 tgcacagggt ggaacaagat g

(2) INFORMATION FOR SEQ ID NO:2838:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3383 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2838:

1 agaagagctg agacatccgt tcccctacaa gaaactctcc ccgggtggaa caagatggat
 61 tatcaagtgt caagtccaat ctatgacatc aattattata catcggagcc ctgccaaaaa
 121 atcaatgtga agcaaatcgc agccccctc ctgcctccgc tctactcact ggtgttcac
 181 tttggttttg tgggcaacat gctggtcatc ctcatcctga taaactgcaa aaggctgaag
 241 agcatgactg acatctacct gctcaacctg gccatctctg acctgttttt ccttcttact
 301 gtccccctct gggctcacta tgctgccgcc cagtgaggact ttggaaatac aatgtgtcaa
 361 ctcttgacag ggctctatct tataggcttc tctcttgaa tcttcttcac catcctctg
 421 acaatcgata ggtacctggc tgtcgtccat gctgtgtttg ctttaaaagc caggacggtc
 481 acctttgggg tgggtgacaag tgtgatcact tgggtggtgg ctgtgtttgc gtctctccca
 541 ggaatcatct ttaccagatc tcaaaaagaa ggtcttcatt acacctgcag ctctcatctt
 601 ccatacagtc agtatcaatt ctggaagaat ttccagacat taaagatagt catcttgagg
 661 ctggtcctgc cgctgcttgt catggctcatc tgctactcgg gaatcctaaa aactctgctt
 721 cggtgtcgaa atgagaagaa gaggcacagg gctgtgaggc ttatcttcac catcatgatt
 781 gttttatttc tcttctgggc tccctacaac attgtccttc tctgaacac cttccaggaa
 841 ttctttggcc tgaataattg cagtagctct aacagggttg accaagctat gcaggtgaca
 901 gagactcttg ggatgacgca ctgctgcac aaccccatca tctatgcctt tgtcggggag
 961 aagttcagaa actacctctt agtcttcttc caaaagcaca ttgccaaacg cttctgcaaa
 1021 tgctgttcta ttttccagca agaggctccc gagcgagcaa gctcagttta caccgatcc
 1081 actggggagc aggaatatc tgtgggcttg tgacacggac tcaagtgggc tggtgaccca

1141 gtcagagttg tgcacatggc ttagttttca tacacagcct gggctggggg tggggtggga
1201 gaggtctttt ttaaaaggaa gttactgtta tagaggtctt aagattcatt catttatttg
1261 gcactctgtt aaagtagatt agatctttta agcccatcaa ttatagaaag ccaaatcaaa
1321 atatgttgat gaaaaatagc aaccttttta tctccccttc acatgcatca agttattgac
1381 aaactctccc ttcactccga aagttcctta tgtatattta aaagaaagcc tcagagaatt
1441 gctgattctt gagtttagtg atctgaacag aaataccaaa attatttcag aaatgtacaa
1501 ctttttacct agtacaaggc aacatatagg ttgtaaatgt gtttaaaaca ggtctttgtc
1561 ttgctatggg gagaaaagac atgaatatga ttagtaaaaga aatgacactt ttcattgtgtg
1621 atttcccctc caaggtatgg ttaataagtt tctactgactt agaaccaggc gagagacttg
1681 tggcctggga gagctgggga agcttcttaa atgagaagga atttgagttg gatcatctat
1741 tgctggcaaa gacagaagcc tcaactgcaag cactgcatgg gcaagcttgg ctgtagaagg
1801 agacagagct ggttgggaag acatggggag gaaggacaag gctagatcat gaagaacctt
1861 gacggcattg ctccgtctaa gtcattgagct gagcagggag atcctgggtg ggttgcaga
1921 aggtttactc tgtggccaaa ggagggtcag gaaggatgag catttagggc aaggagacca
1981 ccaacagccc tcaggtcagg gtgaggatgg cctctgctaa gctcaaggcg tgaggatggg
2041 aaggaggagg gtattcgtaa ggtatgggaag gagggaggta ttcgtgcagc atatgaggat
2101 gcagagtcag cagaactggg gtggatttgg ttggaagtg agggtcagag aggagtcaga
2161 gagaatccct agtcttcaag cagattggag aaaccttga aaagacatca agcacagaag
2221 gaggaggagg aggtttaggt caagaagaag atggatttgt gtaaaaggat gggctctggtt
2281 tgcagagctt gaacacagtc tcccccagac tccaggctgt ctttactga atgcttctga
2341 ctccatagat ttccttccca tcccagctga aatactgagg ggtctccagg aggagactag
2401 atttatgaat acacgaggtg tgaggtctag gaacatactt cagctcacac atgagatcta
2461 ggtgaggatt gattacctag tagtcatttc atgggttgtt gggaggattc tatgaggcaa
2521 ccacaggcag catttagcac atactacaca ttcaataagc atcaaactct tagttactca
2581 ttcagggata gcactgagca aagcattgag caaaggggtc ccatataggt gagggaagcc
2641 tgaaaaacta agatgctgcc tgcccagtcg acacaagtgt aggtatcatt ttctgcattt
2701 aaccgtcaat aggcaaaagg ggaaggagac atattcattt ggaataaagc tgccctgagc
2761 cttaaaaccc acaaaagtac aatttaccag cctccgtatt tcagactgaa tgggggtggg
2821 gggggcgccct taggtactta ttccagatgc cttctccaga caaaccagaa gcaacagaaa
2881 aaatcgtctc tccctccctt tgaaatgaat ataccctta gtgtttgggt atattcattt
2941 caaagggaga gagagaggtt tttttctgtt ctttctcata tgatttgtca catacttgag
3001 actgttttga atttggggga tggctaaaac catcatagta caggtaaggt gagggaatag
3061 taagtgttga gaactactca gggaatgaag gtgtcagaat aataagaggt gctactgact
3121 ttctcagcct ctgaatatga acggtgagca ttgtggctgt cagcagggaag caacgaaggg
3181 aaatgtcttt ccttttgcct ttaagttgtg gagagtgcac cagtagcata ggaccctacc
3241 ctctgggcca agtcaaagac attctgacat cttagtattt gcatattctt atgtatgtga
3301 aagttacaaa ttgcttgaaa gaaaatatgc atctaataaa aaacaccttc taaaataaaa
3361 aaaaaaaaaa aaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2839:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 143068 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2839:

1 aagcttcagt atgcaaatTT tcaatgacat gtgcctgtgg attctgaaaa ttcacagatc
61 tgtctatcct tagctgagac tgaaggcatt tacttcccaa tgaccaaatc ctggtgctgt
121 ggcgacactg agcaggaact ccattagaat atcaatatca ctctgcagac attccatgat
181 gtaagctatg ttttctcttg ttgcaattac acttaattta ccaccagctg ctccaatgtc
241 atgggctatc ttgaaaaatg aagctccttt cgtagtcaaa ctggatgcaa gacacagcaa
301 atgagaagtt actaaattgt tggagtcctc atagctactg cctgctttaa tgaacaaacc
361 aattcttgat gcagggcata gttttccaaa ggagaaatca taaaaccatt tggaaatttg
421 atgatctcaa ggtcctgatg atgtggagcc actcctatgg gggtagctgt ggctttaatc
481 ttgggggcaa ctttgaggga ataaagtctc aaaaagaggg aataaagtct caagattgtt
541 cgtgaccact agtaacttct ggcttaaggg accattcggc aagtttttaa atgtatttc
601 tataatttcc atgtagtctt ttatatattt tatttcttat ttaaaacctc tattttagct
661 cgtttccttt gacactgctc tggcagggaa aggggtggca ctgcctcatt actgccaggt
721 aggggtagaa gtcattatc cacttggctt ccattgatac ccaaagtggg gagaggctcc
781 tttactgctt ggtgagggtg ggagtcctcc cactaagttt ctgctaatac tgtcctgtgt
841 gcttgctact attcccatga agcctccact gatactacat tacttttggg tgggtggcaa
901 tgtcctgctc ctccactagc cctcctgctc taaaacaacc cgagttagga gtgggaagga
961 agctttgtta ctggtagggt ggagctgaag tccagacttg ccacattgtc ccactgatgc
1021 tacaggggag aggaagcggg ccacattact gcctgatagg gatgaaagcc ccagctccct

1081 acctggcctt cgctgatacc agcctgctac aggagtgaag agagatttga aggcctcaat
1141 atagcctgtc gaggggtgaa gtcttgctcc caatgggctt ttagcagcat ggggtgggtgt
1201 ggggccatag ctgtctctgt actgcttggc tagagtggag tatttgaggt ccaaaagtgt
1261 tctgtctttc tagccctttg gttagaaaga gcagactttt gttggaagta tttttttgtg
1321 tttacctgtt gtatttcag gttcctagct tctccagcac agtctgggat gtgtgagaca
1381 cagagaaaaat ccagtgatgt tactaccgta tggtttcttg ggtcccaacg tctctagcta
1441 atctgctcca ccttttgag ttttcttatt tgttttagat cagggattta gtcataatta
1501 ataggagaaa tatggaaaaa tacttctact ctatcttctt ggaagttcct gtttattttt
1561 tatgtccttt tcctctggct agaccgtaag agacttacga aacaaacact tacacattct
1621 actaaactca atgtccaaag tttgtgaact tcttgaatat tgcttggtca tttccacccc
1681 cagtcaactga ctgaatctcc ctgctgtctg tctacaatgc caatgagctt ctggttaact
1741 tcttctcatg catgcttagg caacaacttc ccagttttac tacacttgcc catccctagt
1801 tttgttggtg cttaatccct tggcctagtg ccaccatact cctccagcag agcaaccaat
1861 tcttacatta taggacagca catatccact aaaaacagtt catgccacac caaccacatt
1921 tccctttgtc aacaaaatta cttgatagat aattccagga atgcctgatg aagctgattg
1981 acaacaagat atttggcaga ctctctgctg cctatacata ccttagcatg tggaaactca
2041 gtaatgagag gtccatttaa ttggattgaa ttgggctgga taggattgga ttgaatcctg
2101 tgggatggct aggtctaaat agaaatgaag actagttaa cagcagatc caaggatagt
2161 tgactaatga gtttaattta ctctcaaaga cagtctttag tagtaagctg taatgcatta
2221 tatcaaaacta tttccagtc aatgatttat aagttacttg aataaggatg ctaaagatgt
2281 gccttattga aatggcaatt agcacaaagt tgggaatgaa atctaattag ttaaataaca
2341 gaatcacata aaaaaggact tgaataaatg tagcatccta ccatgttctt ggatagaaag
2401 actgctatcg taaagatatt cattctcttc aggttaaatt ataaactcaa tgcaattcaa
2461 caggatttta aaaaactaga caaagtgtatt ccaagtttac gtggaataa aaatgtgagg
2521 gaccaaaca tatttgaaaa agaaagagaa taaatctca tcctccaga taccacaatg
2581 tattataaag caatagtaat taacatgagg gcagaaatga gcaagcaagt gaacaaaaa
2641 agacagatag tcacaggaat ctcatatatt tatagtgct ttgctgataa tgaagatggg
2701 ccttcaaatc agttgggaaa agatgggtta ttcaataaat ggtgttgggt aaaatttggt
2761 atacattggt gagaaataaa gtgaaactcc tactttgtat catatgcaa aaatagattc
2821 cagacagatg aaatatatta atgtaaaaaa taaaattcta aaactactag aaaaaaaga
2881 agaataattt tattcctttg aaatagaaaaa ggtcttacta agcaaaaacac agaagtaata
2941 aatgaataaa tgagacaaa tatgataaaa ataagttaaa aatataagca atctttcttt
3001 gttttttttt cacctttcct agaaaaaaat atataggcaa cttgttaagc aaggtagatt
3061 acaagaaaaa atttacaaca tttgacaggc cacagattat tatccagcct catctgata
3121 gaaaacttca acataaagat atctgttttt tttcttataa ggttctcaa agtgagccaa
3181 tcactttctt agctgaacaa aaaacaaaac agaagtgatc tttccaata atgaaaacaa
3241 acattgacag agcagctgta ggatcctttc aggcaaatat tgaaaagggt ccctttctca
3301 gaaaccacag ttaccattca gctttgtgac cagaggtttg actgtaccct agtccctact
3361 agcaacccaa aacttcaaaag aacttcaaaag gtctgaaatg actgtgttgt acttaatggc
3421 agatgatcta tctcccattt ttgtcctaag gattttccaa gataatata tctgtcattt
3481 gttttgcttt tacttcaact caaattgaaa tctattttgt ggataagact aaagaaatgc
3541 ttataggaaa attgatagca cttttacttt aatcttaaaa atgaaaaagg tttcaaatca
3601 atgacctcag cttttacttt aagaaaaatg aaaaagcagg ataagctaaa gccaaagtaa
3661 acagaagaaa ggaaattata aagataagag cagaaatcaa tgaatagaaa acaaaagaaa
3721 aaaatcaaac caaacagctg attctttaa agagaagaca aaattgataa aactctagcc
3781 agattgatca agtaaaaaag agatataaaa agtataagg catactttga tgagagggc
3841 aatatcacta cagatcctac agataaaaaa aatttcttga aagacacaaa ataattttat
3901 gactataaat taggcaactt agataaaaaa ttatagctat tacaaaattg aggccaggcg
3961 tcacctaaaa tactcacaaa ttgaatagtc tgggagggtc aggaaggcgg atcacgaggt
4021 cagtggctca agcctttaat ccagcactt tgggagggtc gtctctacta aaagtacaaa
4081 caggagtgtg agaccagcct gactaacatg gtgaaaccct actcaggaga ctgaggcagg
4141 aattagccag gcttggtggt gcgtgctgtt tggtagcgcc agatcgcgcc actgcacttc
4201 agaattgctt gaacctggga ggcaaaagtg tggtagcgcc aaaaaaaaaa aaattgaaat
4261 agcctgggca acagaacaag actcgtctc tctagaccca gatggcttca atggtaaatt
4321 tatagttaaa agtcttccca caaagcaaac aattctccac aatgtctttc ataaaaattg
4381 ctactggaca atcaaacagg aactcattct tgaactagc attaccctga taccaaaatc
4441 tgcggaggag atactctcca actcattcta aacaacagat catgaacata aatgaagtac
4501 atacagagac agtgtaggaa tcagagcttc attgttctac agataaggta atgtaggatt
4561 aatgcagtct tatgcataaa cctccaggtc tgtaaatttc acctccttcc ccagagagca tccttcttaa
4621 gttggttgcc cctccaggtc cctcaatatg tcagtcctca cagcacctcc ctcagctctc agcacttacc
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4741 agctcatcac cacaaccgat tatataggag aagaaggagg aaattcttgt ggatttggt
4801 caagagaaaa aatggatttt attacagatg taaaaagaaa agtgtgtgaa atagtatcct
4861 cagaataggg ccaagggaaa aaatacaatg atttcattgt ttttaaaaat aaaaatgac
4921 tagtgctcac taatgcttta ttgaatgtgt gttatacact ggttctcat tctgaaagt
4981 tgcttggttg ccttctctct ttcatttggt tatgtttgct gaaacaaatc aaaggctgag
5041 agaaataata ccttctctct ttcatttggt cttactact aagctcatca caacagcact
5101 attgaaacac atgctacttc aggtggatga cttactact

5161 tacagctgaa gacccagag tcctacctaa cttttgtcac aaccagatt ttggccatgt
5221 agttctgggc cttaccatta aagcagacag aagtcagagg aatgactcct ttccacttga
5281 agtgagctgc aggtctctag gaaaggcaag atgcacattt cctcctctgt gagcataaag
5341 cctttgtaat tcaggactta ggacccatatt ggatttgaaa tattatgaca ttggagctgg
5401 agtgggtggg gacaacacca gtatgtttat aggccatgga atgtcaaaag aacatggaac
5461 cctgttataaa tcattaaaca tcaaaactct cccctcctct ggtgatattg tttggctgtg
5521 tcccatcca aatctcatct tgaactccca tgtgtttgtg gaggcacca gtggagggtg
5581 attgaatcat gggggcaggt ctttcccatg ctgttttcac gatactgaat aagtctcaca
5641 agatctgatg gttttataaa ggggagcttc cctgcacaag ctctcttctc ttgtctgcca
5701 ccatgtgaga catgcctttc accttccgcc atgattgtga ggcctcccca accatgtgga
5761 acttttaagt tcattaaacc tcttcccttt gttaaattgt cagtctcaca tatgtcttta
5821 tcagcaacgt gaaaacagac tatctgattt tctgtgggat gtggattatg accatggaca
5881 gagcataaact gggacagagc tggaaaaaat attaatagg tgcttaaaaa tatttcttag
5941 aactatcttc atgaatgaga atcaatcctg tttccatggt gattcaccag gcatcaattc
6001 caagcatcca tgaatcagaa aagtcctatc ttctcttagt tatcatccag gactccaagg
6061 aaccataatt agccaaactg ttcacatttc cttttcattc actagcctcg aagtttccag
6121 gggacagggg ctctgtccta ttcattttct taaccttacc acctgacca gaatagctgt
6181 tccctgaaga tttgtgtgat tataaatgtg gatgtcttat ttctttgaaa gtgtgagctt
6241 caggtactga tcacgttatt ccaattatca atttagtatc ttcttccacc attaaactgt
6301 gaaattcttg aggaagaac ctatgactga ttatctctg taaactcatg ccaccagtat
6361 tcaaaatcac acctagcaca tagtaaacac tcaatgtttg ttgaatgact gaaggaatgg
6421 atgaaaatga acctccttgc ttctgaccag tggatgagtt gcttggccgt gttcctacag
6481 cctagagctc atcccctaaa gcatctgaag ttaccatta gtgcaatggt tcttgaacgc
6541 ttgtgtttgat cagaatcatc tggatgcccc ggttctctga aataagatag ggtctaggca
6601 tttgtatttt taccaggag gtgtgatgga gtcagatgca agaaggctag ttgaagaaac
6661 cacatgagag tttagtgtag tgtattagaa gactggtttg gctctgtcgc tagtggctac
6721 atcatcttgc tcaagtcatg ccagtctcag gacctcattc agtctcttca gctgtaatat
6781 ggggtgggtg caccacataa ccagaaagat cccctccagc tctaccact tacaacatgg
6841 tcaaatttgg tctgattttt taaatcgtag tacaatatat atgacataaa attcaccatt
6901 tttagccact taaatgtaca attctgtagc attaaactaca ttacatttgt tgtgcaacca
6961 tcaactaccgt ctacttccag aactcttcat cttgcaaaac tgaacctctg ttgtcattag
7021 tcaactaacta ttctctctcc cccctccttc taggcctgg caatcaccat tctactttct
7081 gtcgtatga atttgactac tctaggtaac ttatataagt ggaatcacag cattttgccct
7141 attatgactg gttttagtga cttagcaca cctcctaagg ctcaaccaca ttttagctag
7201 tgtcagaatt ttctttgttt ttaaggctga ataattttct gttgtatctg taaataacat
7261 ctttattcat ttgtccatca acagactgtt gagttccctc catcttttga ctattgtgaa
7321 aaatgctgct atgaacctga gtgtacagac atctggttga gtactgcttt caattcattg
7381 tttatattgga tcatatggta attttatggt taattttttt ggaactgcta cattgttttc
7441 cacagtgtac atcattttac atttccatca gcaatgcaca aaggttccaa tttctccaca
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(2) INFORMATION FOR SEQ ID NO:2840:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 149272 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2840:

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(2) INFORMATION FOR SEQ ID NO:2841:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5133 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2841:

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3181 ccaagtgtat gggactctgg agctggtggg agagatcgag gcctcttcca tgttccagct
3241 ctgcagctcc ctctccatct ccttcaacag cagcaagcat ttccactct atggcagcaa
3301 cgctccctg gccaggttg tcatgaaggt tgacgtgggt tatgagaagc agatgctcta
3361 cctctacgtg ctgagcggca tcgggggggt gctgctgctg ctgctcattt tcatagtgtc
3421 gtacaaggtt ggtttcttca aacggaaacct gaaggagaag atggaggctg gcagagggtg
3481 cccgaatgga atccctgcag aagactctga gcagctggca tctgggcaag aggtctggga
3541 tcccggtctg ctgaagcccc tccatgagaa ggactctgag agtggtgggt gcaaggactg
3601 agtccaggcc tgtgaggtgc agagtgcaca gaactggact caggatgccc agggccactc
3661 tgcctctgcc tgcattctgc cgtgtgccct cgggcgagtc actgcctctc cctggccctc
3721 agtttcccta tctcgaacat ggaactcatt cctgaatgtc tcccttgagc gctcataggg
3781 aagacctgct gagggaccag ccaagagggc tgcaaaagtg agggcttgct attaccagac
3841 ggttcaccag cctctcttgg ttccttctt ggaagagaat gtctgatcta aatgtggaga
3901 aactgtatgc tcaggacctg gggatgttct ggccctcacc cctgcccctg gatgtccaca
3961 gatgcctcca cccccagaa cctgtccttg cacactcccc tgcactggag tccagtctct
4021 tctgctggca gaaagcaaat gtgacctgtg tcaactacgt actgtggcac acgccttggt
4081 cttggccaaa gaccaaattc cttggcatgc cttccagcac cctgcaaat gagaccctcg
4141 tggccttccc cagcctcttc tagagccgtg atgcctccct gttgaagctc tggtagacac
4201 agcctttctc ccaggccagg ctccctcctg tcttctctga ttcaccaga cagctccctc
4261 tgcctgaacc tccatctctg cccaccctc ctcccttgac cagcagatcc cagctcacgt
4321 cacacacttg gttgggtcct cacatcttcc acacttccac caccctgcac tactccctca
4381 aagcacacgt catgtttctt catccggcag cctggatgtt ttttccctgt ttaatgattg
4441 acgtacttag cagctatctc tcagtgaact gtgagggtaa aggcataact tgtctgttcc
4501 accttgggat gacggcgcac gatatgtcag ggcgtgggac atctagtagg tgcctgacat
4561 aatttccactg aattaatgac agagccagtg ggaagataca gaaaaagagg gccggggctg
4621 ggcgcgggtg ttcacgcctg taatcccagc actttgggag gccaaaggagg gtggatcacc
4681 tgaggtcagg agtttagagg cagcctggcg aaacccctc tctactaaaa atacaaaatc
4741 caggcgtggt ggcacacacc tgtagtccca gctactcagg aggttgagggt aggagaattg

4801 cttgaacctg ggaggtggag gttgcagtga gccaaagattg cgccattgca ctccagcctg
 4861 ggcaacacag cgagactccg tctcaaggaa aaaataaaaa taaaaagcgg gcacggggcc
 4921 ggacatcccc acccttggag gctgtcttct caggctctgc cctgccctag ctccacaccc
 4981 tctcccagga cccatcacgc ctgtgcagtg gccccacag aaagactgag ctcaagggtg
 5041 gaaccacgtc tgctaacttg gagccccagt gccaaagcaca gtgcctgcat gtatttatcc
 5101 aataaatgtg aaattctgtc caaaaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2842:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1388 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2842:

1 ggatccagaa gggtcattca atcagttctc agtccttatca ggtctaagtt cctttcttat
 61 caggtcctaa aggcctaatac ttatcattgt gacaaagata actgtagagt ctgttaaact
 121 ttttttttaa taacatgaag attatgattt atagctgaat ttctcccttt tattccaatt
 181 caacaatttt catggctttt tgtgtttgtt ttgttctgga catatttaca gaaaattacc
 241 tgaagagttc caacctgagg cctcctcatg gatgggtcaa acgtgacatc atttgttgtt
 301 gaggaaccca cgaacatctc aactggcagg aacgcctcag tcgggaatgc acatcggcaa
 361 atccccatcg tgcaactgggt cattatgagc atctccccag tggggtttgt tgagaatggg
 421 attctcctct ggttctctgt cttccggatg agaagaaatc ccttcactgt ctacatcacc
 481 cactgtgcta tcgcagacat ctactgctc ttctgtattt tcatcttgct tatcgactat
 541 gctttagatt atgagctttc ttctggccat tactacacaa ttgtcacatt atcagtgact
 601 tttctgtttg gctacaacac gggcctctat ctgctgacgg ccattagtgt ggagaggtgc
 661 ctgtcagttc tttaccctat ctggtaccga tgccatcgcc ccaagtacca gtcggcattg
 721 gtctgtgccc ttctgtgggc tctttcttgc ttggtgacca ccatggagta tgtcatgtgc
 781 atcgacagag aagaagagag tcaactctcg aatgactgcc gagcagtcac catctttata
 841 gccatcctga gcttcttggt cttcacgccc ctcatgctgg tgtccagcac catcttggtc
 901 gtgaagatcc ggaagaacac gtgggcttcc cattcctcca agctttacat agtcacatg
 961 gtcaccatca ttatattcct catcttcgct atgcccata gactccttta cctgctgtac
 1021 tatgagtatt ggtcgacctt tgggaacctc caccacattt ccctgctctt ctccacaatc
 1081 aacagtagcg ccaacctttt catttacttc ttgtgtggaa gcagtaagaa gaagagattc
 1141 aaggagtctt taaaagtgtg tctgaccagg gctttcaaag atgaaatgca acctcggcgc
 1201 cagaaagaca attgtaatac ggtcacagtt gagactgtcg tctaagaact gtgagggaag
 1261 ttgtggataa aaatgggtga acacaggtca tttttagttt gtgcttgga tatgacttaa
 1321 gtatctccta aatgtgatac agaagaacat ctcatcccat atgcatgaga tactaattaa
 1381 tgatgaaa

(2) INFORMATION FOR SEQ ID NO:2843:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 393 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2843:

1 gagcagtgcc cagcttgtcg cagatatga agccgtgtaa aataaatgcc tttgattgtt
 61 cacactttta gcaatatttg tacaatatta aacctattgt cccaggcact ccctctcctt
 121 actgcttatg gcacttcatg tattaataaa tgacagtggc agcattgccc agacatgcgt
 181 tttgtcatca agtcttaatg cagtccacct ggtccctcag gcaaatgaat ggaggcacag
 241 aagatgaaat gattttcaaa atgccattag gaaagctcag gccagaactg gaaatgggtc
 301 ccgcacaggg cactcgcca ctcttgctg gccatctcct ttttggcact aagcacacaa
 361 tgatatagaa tgaatggtta tcaactggga tcc

(2) INFORMATION FOR SEQ ID NO:2844:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1388 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2844:

1 ggatccagaa gggtcattca atcagttctc agtccttatca ggtctaagtt cctttcttat
 61 caggtcctaa aggcctaatac ttatcattgt gacaaagata actgtagagt ctgttaaact

121 ttttttttaa taacatgaag attatgattt atagctgaat ttctcccttt tattccaatt
 181 caacaatttt catggctttt tgtgtttgtt ttgttctgga catattttaca gaaaattacc
 241 tgaagagttc caacctgagg cctcctcatg gatgggtcaa acgtgacatc atttgttgtt
 301 gaggaaccca cgaacatctc aactggcagg aacgcctcag tcgggaatgc acatcggcaa
 361 atcccatcgc tgcactgggt cattatgagc atctcccccag tggggtttgt tgagaatggg
 421 attctcctct ggttcctgtg cttccggatg agaagaaatc ccttcactgt ctacatcacc
 481 cacctgtcta tcgcagacat ctcactgctc ttctgtattt tcactcttgc tatcgactat
 541 gcttttagatt atgagctttt ttctggccat tactacacaa ttgtcacatt atcagtgaat
 601 tttctgtttg gctacaacac gggcctctat ctgctgacgg ccattagtgt ggagaggtgc
 661 ctgtcagtc tttaccccat ctggtaccga tggcatcgcc ccaagtacca gtcggcattg
 721 gtctgtgccc ttctgtgggc tctttcttgc ttggtgacca ccattggagta tgtcatgtgc
 781 atcgacagag aagaagagag tcaactctcg aatgactgcc gagcagtcac catctttata
 841 gccatcctga ggttcctggt cttcacgccc ctcactgctg tgtccagcac catcttggtc
 901 gtgaagatcc ggaagaacac gtgggcttcc cattcctcca agctttacat agtcatcatg
 961 gtcaccatca ttatattcct catcttcgct atgcccata gactccttta cctgctgtac
 1021 tatgagtatt ggtcgacctt tgggaacctt caccacattt ccctgctctt ctccacaatc
 1081 aacagtagcg ccaacccttt catttacttc tttgtgggaa gcagtaagaa gaagagattc
 1141 aaggagtcct taaaagttgt tctgaccagg gctttcaaag atgaaatgca acctcggcgc
 1201 cagaagagaca attgtaatac ggtcacagtt gagactgtcg tctaagaact gtgaggggag
 1261 ttgtggataa aatggtgga acacaggtca tttttagttt gtgcttgaa tatgacttaa
 1321 gtatctccta aatgtgatac agaagaacat ctcaccccat atgcatgaga tactaattaa
 1381 tgatgaaa

(2) INFORMATION FOR SEQ ID NO:2845:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3169 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2845:

1 ggatccagaa gggtcattca atcagttctc agtcttatca ggtctaagtt cctttcttat
 61 caggtcctaa aggcctaate ttatcattgt gacaaagata actgtagagt ctgttaaact
 121 ttttttttaa taacatgaag attatgattt atagctgaat ttctcccttt tattccaatt
 181 caacaatttt catggctttt tgtgtttgtt ttgttctgga catattttaca gaaaattacc
 241 tgaagagttc caacctgagg cctcctcatg gatgggtcaa acgtgacatc atttgttgtt
 301 gaggaaccca cgaacatctc aactggcagg aacgcctcag tcgggaatgc acatcggcaa
 361 atcccatcgc tgcactgggt cattatgagc atctcccccag tggggtttgt tgagaatggg
 421 attctcctct ggttcctgtg cttccggatg agaagaaatc ccttcactgt ctacatcacc
 481 cacctgtcta tcgcagacat ctcactgctc ttctgtattt tcactcttgc tatcgactat
 541 gcttttagatt atgagctttt ttctggccat tactacacaa ttgtcacatt atcagtgaat
 601 tttctgtttg gctacaacac gggcctctat ctgctgacgg ccattagtgt ggagaggtgc
 661 ctgtcagtc tttaccccat ctggtaccga tggcatcgcc ccaagtacca gtcggcattg
 721 gtctgtgccc ttctgtgggc tctttcttgc ttggtgacca ccattggagta tgtcatgtgc
 781 atcgacagag aagaagagag tcaactctcg aatgactgcc gagcagtcac catctttata
 841 gccatcctga ggttcctggt cttcacgccc ctcactgctg tgtccagcac catcttggtc
 901 gtgaagatcc ggaagaacac gtgggcttcc cattcctcca agctttacat agtcatcatg
 961 gtcaccatca ttatattcct catcttcgct atgcccata gactccttta cctgctgtac
 1021 tatgagtatt ggtcgacctt tgggaacctt caccacattt ccctgctctt ctccacaatc
 1081 aacagtagcg ccaacccttt catttacttc tttgtgggaa gcagtaagaa gaagagattc
 1141 aaggagtcct taaaagttgt tctgaccagg gctttcaaag atgaaatgca acctcggcgc
 1201 cagaagagaca attgtaatac ggtcacagtt gagactgtcg tctaagaact gtgaggggag
 1261 ttgtggataa aatggtgga acacaggtca tttttagttt gtgcttgaa tatgacttaa
 1321 gtatctccta aatgtgatac agaagaacat ctcaccccat atgcatgaga tactaattaa
 1381 tgatgaaa
 1389 gagcagtgcc cagcttgtcg agatattga agccgtgtaa aataaatgcc tttgattggt
 1449 cacactttta gcaatattgg tacaatatta aaccattgt cccaggcact ccctctcctt
 1509 actgcttatg gcacttcatg tattaataaa tgacagtggc agcattggcc agacatgctg
 1569 tttgtcatca agtcttaaat cagtcacact ggtccctcag gcaaatgaat ggaggcacag
 1629 aagatgaaat gattttcaaa atgccattag gaaagctcag gccagaactg gaaatgggtc
 1689 ccgcacaggg cactcggcca ctcttgctg gccatctcct ttttggcact aagcacacaa
 1749 tgatatagaa tgaatggtta tcaactggga tcc
 1782 ggatccagaa gggtcattca atcagttctc agtcttatca ggtctaagtt cctttcttat

1842 caggtcctaa aggcctaatac ttatcattgt gacaaagata actgtagagt ctgttaaact
 1902 ttttttttaa taacatgaag attatgattt atagctgaat ttctcccttt tattccaatt
 1962 caacaatttt catggctttt tgtgtttgtt ttgttctgga catatttaca gaaaattacc
 2022 tgaagagttc caacctgagg cctcctcatg gatgggtcaa acgtgacatc atttgttggt
 2082 gaggaaccca cgaacatctc aactggcagg aacgcctcag tcgggaatgc acatcggcaa
 2142 atccccatcg tgcactgggt cattatgagc atctccccag tggggtttgt tgagaatggg
 2202 atttccctct ggttcctgtg cttccggatg agaagaaatc ctttactgt ctacatcacc
 2262 caccgtgtct tgcagacat ctcactgtct ttctgtattt tcatcttgct tatcgactat
 2322 gcttttagatt atgagctttt ttctggccat tactacacaa ttgtcacatt atcagtgaat
 2382 tttctgtttg gctacaacac gggcctctat ctgctgacgg ccattagtgt ggagaggtgc
 2442 ctgtcagtc tttaccccat ctggtaccga tgccatcgcc ccaagtacca gtcggcattg
 2502 gtctgtgccc ttctgtgggc tctttcttgc ttggtgacca ccattggagta tgtcatgtgc
 2562 atcgacagag aagaagagag tcaactctcg aatgactgcc gagcagtcac catctttata
 2622 gccactctga gcttctgtgt cttcacgccc ctcatgtctg ttgccagcac catcttggtc
 2682 gtgaagatcc ggaagaacac gtgggcttcc cattcctcca agctttacat agtcatcatg
 2742 gtcaccatca ttatattcct catctctgct atgcccata gactccttta cctgctgtac
 2802 tatgagtatt ggtcgacctt tgggaacctc caccacattt cctgtctctt ctccacaatc
 2862 aacagttagc ccaacccttt catttacttc tttgtgggaa gcagtaagaa gaagagattc
 2922 aaggagtcct taaaagtgtt tctgaccagg gctttcaaa atgaaatgca acctcggcgc
 2982 cagaaagaca attgtaatac ggtcacagtt gagactgtcg tctaagaact gtgagggaag
 3042 ttgtggataa aaatggtgga acacaggtca ttttagttt gtgcttgga tatgacttaa
 3102 gtatctccta aatgtgatac agaagaacat ctcaccccat atgcatgaga tactaattaa
 3162 tgatgaaa

(2) INFORMATION FOR SEQ ID NO:2846:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3585 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2846:

1 gggcccagag aaagagctgt ccccggggccc ttggggacag ggtgacagcc acccagagat
 61 catggagaag gggacgtaag gaagacctca cagaggagtc atctctgcgc tgtgttggtt
 121 gggctccttca ggaagcagag tcccaggagt tggaagcata agaggaatac tgcgggcaat
 181 gcctgagaaa gataacaggg accgggagca ggagtgaatt gggcagggga aggatcagcc
 241 ccacaatgcc aggtctcacac ctgcagagga gggaaagaaga agaaggccct cacatcagcc
 301 cagcggggga tgttacgccc acagacgccc cggggctcag ttactgtcta agtgttagaa
 361 ataaattttc ggtgccacaa aagaaatagc actcagatta aatgttccca gcaaggcaat
 421 tttacttcta tagaagggtg catctcacag atggagcaat ggcaagagca cacctgaaca
 481 agggaaagga aggggttttt atccctaagg caggtagccc ctacagctgt gttgttcccc
 541 tattggctag ggttggaaca caccgtctga gctaattgtt actggctatt ttaaagagag
 601 caggggtaag agccggattg gcagggttaag tagtttgga ggaaggacgg tcacagaaca
 661 ggtgactcag gatgactcag gtcagagcag gtgaccagtg gtgactcagt tcggagcagg
 721 tgatagaagc taggaggggg ttgtttactg aaactagggg caaggagacg aagagaacat
 781 gaaagttaaa ctttaagatg aagaacaaag ctgaacatac tgatgcattg gatctttgga
 841 gaggatctca gaactcattg tacttaattt acaggctaaa accttagaag aggaatttat
 901 tatatcctac acaagactcc agggaagcac atggccttgg actgaaggct ggcattctgga
 961 agctgtcagc caccagcacc ttctgcagca ggtacctgct ctctaagagg gaggcctggg
 1021 tgggtcacct ccagagctgc ccaggctggg cctcaaggaa gaaaaagatt ttcatttgtc
 1081 agaggcggaa gggagaggtg gagggaacag cacagcagcg gcccaggggc agggaagcac
 1141 aggaccatta gggagacacg agaaagccca tttgtctaga acagaggatt caagcagtgc
 1201 accaaggaata atgagggcca ggccaattgt ctggagtggc ttgttcttg gctgagggtt
 1261 ttgggtagtg ccaaaagcga aggtaagccc tgctttccag aagaatctag cagagtgttg
 1321 agcccagatg ggaactggaag gctcgggagg ggtcaggtg ccacagggac ggccacagc
 1381 cagtgggtgca ggcaagaaga caatggccat ccatgggtgc tcacacctgg aatcccagcc
 1441 cattgggagg tcgaggcagg tggatcacct gaggtcagga gttcgagacc agcctggtca
 1501 acatggtgaa accctgtctc taataaaatt ataaaaatta gccgggcgtg gtggtgggta
 1561 cctgtaatat cagctactca ggaggctggg tcaggagaaat cgcttgaacc caggaggcgg
 1621 aggttacagt gagctgagat agcaccattg cattccagcc tggacaacaa aagcagact
 1681 ctgtctcaaa aaaaaaaaaa aattagccag gcgtgggtgt ggggtgctgt cgtcctcggg
 1741 aggctgaggc atgagaatca ctccgggagg cagagggtgc aatgaaccaa gatcacacca
 1801 ctgcactcca gcctgggtga cagagcaaga ctcgtgtctaa aaaaaaaaaa aagacagaag

1861 gatgtcagca tctgatgctg cctgtcacct tgaccctgag gatgccagtc acagctccat
 1921 taactgggac ctaggaaaat gagtcacatcct tggatcatgca catttcaaataa ggtgggcttaa
 1981 tatggaagcc acacttggga tctgttgtct cctccagcat ggtagaagat gcctgaaaag
 2041 taggggctgg atcccatccc ctgcctcact gggaaggcga ggtggtgggg tggggtgggg
 2101 cctcaggctt ggggtcatgg gacaaagccc aggtctaatg ccgcccctcc atctccctcc
 2161 tcttgagaca ggggcagcag ggcacactag tgtccaggag cagcttatga ggcctctca
 2221 ccctccgac ctccaaaact ggcagacccc acctctcttg gtgtgacccc agagctctga
 2281 gcacagcccc ttctctccgc ctgcccggcc cccacccagg cccaccccaa ccttatcctc
 2341 cactgctttt cagaggagtc tggccaacac aaatcctctt gtttgtttgt ctgtctgtct
 2401 gctgtcctta gtctctgctt ctcccagctt ctcagcttcc gtttctttct taaactttct
 2461 ctcagctctt gaggtctcga aatcacgagg cttcgacccc tgtggaccag atgcccagct
 2521 agtggccttt ctccagcccc tcagatggca cagaactaca aaccccagca tgcactctgg
 2581 cctgaagtgc ctggagagtg ctggtgtacc ccacctgcat tctgggaact gtagtttccc
 2641 tagtccccc tgctccacc agggcatcaa gctcttccct ggccggctga cctgctca
 2701 gccctagtct ctctgctgac ctgcccggcc gggaagcgtg cgtcactgaa tgacagggtg
 2761 ggggtggagg cactggaagg cagcttctct ctcttttgtg tccccactt gtagcatggg
 2821 ggtgtggggg ttccaggaaa ttggggctgg gaggggaagg gataccctaa tgcagactc
 2881 aaggacaaaa agtcactaca tcttgtctgg gcctctatcc ccaagaacct aaaaggactc
 2941 aagggtgggg atccaggagt tctgtatgt atggggggag gtgaaggaga gaacctgcat
 3001 gacctagag gtccctgtgg tctagagag tgtgggctgc catccctgc tacagaaacg
 3061 gtgctcacct tctgcccac cctccaggga aaggcacaca ggggtgaggc cgaaccttcc
 3121 gtctggtgcc acatcacaga aggaccttta tgacccctg gtggtctac cctgacctc
 3181 cccaatgccc cagcccccct gctgcagccc cagggtctg ctggacacct gggctcccac
 3241 ttatcagcct cagtcctcac agcggaaaccc aggcgtccgg cccccaccc ttcaggccag
 3301 cgggcgtgga gctgaggctt tagagcctcc cagccgggct tgttctgtc ccattgtgta
 3361 tgggataggg gcggggcgag ggcagcact ggagagcccc ctccactgc cccctcctct
 3421 cggctccctc cctcttcta aggaaaaggc cagggtctg ctggagcagg cagcagagtg
 3481 gacgcacagt aacatgggca acttgaagag cgtggccccc gagcctgggc caccctgcgg
 3541 cctggggctg gggctgggccc ttgggtgtg cggcaagcag ggccc

(2) INFORMATION FOR SEQ ID NO:2847:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23142 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2847:

1 ggatcccatg ccctgcctca ctgggaaggc gaggtggtgg ggtggggtgg ggcctcaggc
 61 ttgggggtcat gggacaaaag ccaggctgaa tgcgcgccct ccactcctct cctcctgaga
 121 caggggcagc agggcacact agtgtgcagg agcagcttat gaggccccct caccctccat
 181 cctccaaaac tggcagaccc cacttctctg gtgtgacccc agagctctga gcacagcccc
 241 ttctctccgc ctgcccggcc cccacccagg cccaccccaa ccttatcctc cactgctttt
 301 cagaggagtc tggccaacac aaatcctctt gtttgtttgt ctgtctgtct gctgtccta
 361 gtctgtgctt ctccagctt ctcagcttcc gtttctttct taaactttct ctcagctctt
 421 gaggtctcga aatcacgagg cttcgacccc tgtggaccag atgcccagct agtggccttt
 481 ctccagcccc tcagatgaca cagaactaca aaccccagca tgcactctgg cctgaagtgc
 541 ctggagagtg ctggtgtacc ccacctgcat tctgggaact gtagtttccc tagtccccc
 601 tgcctccacc agggcatcaa gctcttccct ggtgggtga cctgctca gccctagtct
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 22201 ccaggatcag ccccgctcct cccctcttga ggtggtgcct tctcacatct gtccagaggc
 22261 tgcaaggatt cagcattatt cctccaggaa ggagcaaaac gcctcttttc cctctctagg
 22321 cctgttgctt cgggcctggg tccgccttaa tctggaaggc cctcccagc agcggtaccc
 22381 cagggcctac tggcaccgcg ttcctgtttc ttagtcgaat gttagattcc tcttgcctct
 22441 ctcaggagta tcttacctgt aaagtcta atctaaatca agtatttatt attgaagatt
 22501 taccataagg gactgtgcca gatgttagga gaactactaa agtgccatcc ccagctcatg
 22561 tggattacag tttttttttt ttgttttttt ttttttgaaa cggagtcctc ctctgccgcg
 22621 cgggctggag tgcagtggcg tgactcagc tcaactgaac ctccaccaca caagttcaag
 22681 tgattctcct gctcagcct cccaagtagt tgggattaca ggtgcctgcc accgcgcccg
 22741 gctagggttt gtatttttag taaagacggg gtttcaccat cttggccagg ctggtcttga
 22801 actcctgacc tctgatcca accgcctcag cctcccaag tgctgggatt acaggtgtga
 22861 gctactgcac ccggcgtgga ttacaattat aaaatgacaa gatttctgtt ttaacctgtg
 22921 cagttgtggg tatgtgtggg ggaaggggtt cattctttta acagagtcct acacgccact
 22981 tgacctgca ctctgaaaac atggtttcca gccagtcctg gctgctcccc cgtgcagttc
 23041 tcaggctcgt aatcgagaag gcaggtgcag cactcagctg ccaggagtgg ggcctgccag
 23101 aaacaagagt cacagagatg tgcaacagcc atgagcaagc tt

(2) INFORMATION FOR SEQ ID NO:2848:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3690 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2848:

1 cagagtggac gcacagtaac atgggcaact tgaagagcgt ggccaggag cctggggcac
 61 cctgcggcct ggggctgggg ctgggccttg ggctgtgcgg caagcagggc ccagccaccc
 121 cggcccttga gccagccggg gccccagcat ccctactccc accagcgcca gaacacagcc
 181 ccccgagctc cccgctaacc cagccccag aggggcccga gttccctcgt gtgaagaact
 241 gggaggtggg gagcatcacc tatgacaccc tcagcgccca ggcgcagcag gatgggccc
 301 gcaccccaag acgtgcctg ggctccctgg tatttccacg gaaactacag ggcggccct
 361 ccccgggccc cccggcccct gagcagctgc tgagtcaggc ccgggacttc atcaaccagt
 421 actacagctc catlaagagg agcggctccc agggccacga acagcggtt caagaggtgg
 481 aagccgaggt ggcagccaca ggcacctacc agcttaggga gagcgagctg gtgttcgggg

541 ctaagcaggc ctggcgcaac gctccccgct gcgtgggccc gatccagtgg gggaagctgc
601 aggtgttcga tgcccgggac tgaggtctg cacaggaaat gttcacctac atctgcaacc
661 acatcaagta tgccaccaac cggggcaacc ttgcgtcggc catcacagtg ttcccgagc
721 gctgccctgg ccgaggagac ttccgaatct ggaacagcca gctggtgcgc tacgcgggct
781 accggcagca ggacggctct gtgcgggggg acccagccaa cgtggagatc accgagctct
841 gcattcagca cggctggacc ccaggaaacg gtgcgttcga cgtgctgccc ctgctgctgc
901 agggccccaga tgagccccca gaactcttcc ttctgcccc ctagctggtc cttgaggtgc
961 ccctggagca cccacgctg gagtgggtt cagccctggg cctgcgctgg tacgcccctc
1021 cggcagtgct caacatgctg ctggaaattg ggggcctgga gttccccgca gcccccttca
1081 gtggctggtg catgagcact gagatcgga cgaggaaact gtgtgacct caccgctaca
1141 acatcctgga gtagtggtg gtctgcatgg acctggatac ccggaccacc tctgcccctg
1201 ggaaagacaa ggcagcagtg gaaatcaacg tggcctgctg gcacagttac cagctagcca
1261 aagtcaccat cgtggaccac cagcccgcca cggcctcttt catgaagcac ctggagaaatg
1321 agcagaagtc cagggggggc tgccctgcag actgggctg gatcgtgccc cccatctcgg
1381 gcagcctcac tctgttttc catcaggaga ttgtcaacta ttctctgtcc ccggccttcc
1441 gctaccagcc agacccttg aaggggagtg ccgccaaggg caccgcatc accaggaaga
1501 agacctttaa agaagtggc aacgcctga agatctccg ctcgctcatg ggcacgggtg
1561 tggcgaagcg agtgaagcg acaatcctgt atggctccga gaccggccgg gccagagctc
1621 acgcacagca gctggggaga ctctccgga aggttttga tccccgggtc ctgtgtatgg
1681 atgagtatga cgtggtgtcc ctggaacacg agacgctgg gctggtggtg accagcacat
1741 ttgggaatgg gtagccccg gagaatggag agagctttgc agctgcccgt atggagatgt
1801 ccggccccta caacagctcc ctcggccgg aacagcaca gagttataag atccgcttca
1861 acagcatctc ctgctcagac ccaactggtg ctcttggcg gcggaagagg aaggagtcca
1921 gtaacacaga cagtgcagg gcccgggca ccctcaggt ctgtgtgttc gggctcggct
1981 cccgggcata ccccaactc tgccctttg ctgctgccc ggacacacgg ctggaggaac
2041 tggcggggga gcgctgctg cagctgggccc agggcgacga gctgtgccc caggaggagg
2101 ccttcagagg ctgggcccag gctgcccctc agggcgccct tgagacctc tgtgtgggag
2161 aggtatgccaa ggcgcgcccc cagacatct tcagcccaa acggagctgg aagcgccaga
2221 ggtaccggtc gagcgcccag gccgagggcc tgcagttgct gccaggtctg atccacgtgc
2281 acaggcgga gatgttcag gctacaatcc gctcagtgga aaacctgcaa agcagcaagt
2341 ccacgagggc caccatctg gtgcgctgg acaccggagg ccaggagggg ctgcagtacc
2401 agccggggga ccacataggt gtctgcccgc ccaaccggcc cggccttgtg gaggcgctgc
2461 tgagccgctg ggaggaccg ccggcgccca ctgagccgt ggcagtagag cagctggaga
2521 agggcagccc tgggtggcct ccccccggct ggggtgccc ccccccggct ccccgctgca
2581 cgctgcgcca ggtctcacc ttcttctg acatcacctc cccaccagc cctcagctct
2641 tgcggtgct cagcacctg gcagaagag ccagggaaca gcaggagctg gaggccctca
2701 gccagatcc ccgacgtac gaggagtga agtggttccg ctgcccacg ctgctggagg
2761 tgcaggagca gttcccgctg gtggcgctgc ctgcccact gctcctcac cagctgcctc
2821 tgctccagcc ccggtactac tcagtcagct cggcaccag caccaccca ggagagatcc
2881 acctcactgt agctgtgctg gcatacagga ctcaggatgg gctgggcccc ctgcactatg
2941 gagtctgctc cagtggtcta agccagctca agcccggaga ccctgtgccc tgcctcatcc
3001 ggggggctcc ctcttccg ctgccaccg atcccagctt gccctgcat ctgggtgggtc
3061 caggcactgg cattgcccc ttccggggat tctggcagga cgggctgcat gacattgaga
3121 gcaaagggtc gcagccact cccatgactt tgggttccg ctgcccagtc tcccaacttg
3181 accatctcta ccgcgacgag gtgcagaacg cccagcagcg cggggtgttt ggccgagtc
3241 tcaccgctt ctcccggaa cctgacaacc ccaagacct cgtgcaggac atcctgagga
3301 cggagctggc tgccgaggtg caccgctgc tgtgcctcga gcggggccac atgtttgtct
3361 gcggcgatgt taccatggca accaacgtcc tgcagaccgt gcagcgcac ctggcgacgg
3421 agggcgacat ggagctggac gaggccggcg acgtcatcgg cgtgctcgg gatcagcaac
3481 gctaccacga agacattttc gggctcacgc tgcgcacca ggaggtgaca agccgcatac
3541 gcaccagag cttttccttg caggagcgtc agttgcgggg cgcagtgccc tggcgcttcg
3601 accctccgg ctcagacacc aacagccct gagagccgc tggctttccc ttccagttcc
3661 gggagagcgg ctgcccagct caggtccgccc

(2) INFORMATION FOR SEQ ID NO:2849:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30417 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2849:

1 gggcccagag aaagagctgt ccccggggccc ttggggacag ggtgacagcc acccagagat

61 catggagaag gggacgtaag gaagacctca cagaggagtc atcctgcgac tgtgttggtt
121 gggctccttca ggaagcagag tcccaggagt tggagcata agaggaatac tgcgggcaat
181 gcctgagaaa gataacaggg accgggagca ggagtgaatt gggcagggga aggatcaggc
241 ccacaatgcc aggctcacac ctgcagagga gggaagaaga agaagggcct cacatcagcc
301 cagcggggga tgttacgccc acagacgccc cggggctcag ttactgtcta agtgttagaa
361 ataaattttc ggtgccacaa aagaaatagc actcagatta aatgttccca gcaaggcaat
421 ttacttcta tagaagggtg catctcacag atggagcaat ggcaagagca cacctgaaca
481 aggggaaggga aggggttttt atccctaagg caggtagccc ctacagctgt gttgttcccc
541 tattggctag ggttggaacca caccgtctga gctaattgtt actggctatt ttaagagag
601 caggggttaag agccggattg gcagggttaag tagtttgga ggaaggacgg tcacagaaca
661 ggtgactcag gatgactcag gtcagagcag gtgaccagt gtgactcagt tcggagcagg
721 tgatagaagc taggaggggg ttgtttactg aaactagggg caaggagacg aagagaacat
781 gaaagttaaa ctttaagatg aagaacaaa ctgaacatac tgatgcattg gatctttgga
841 gaggatctca gaactcattg tacttaattt acaggctaaa accttagaag aggaatttat
901 tatatcctac acaagactcc agggaagcac atggccttgg actgaaggct ggcactctgga
961 agctgtcagc caccagcacc ttctgcagca ggtacctgct cttaagagg gaggcctggg
1021 tgggtcacct ccagagctgc ccaggctggg cctcaaggaa gaaaaagatt ttcatttgc
1081 agaggcgga gggagagtg gaggaacac cacagcagcg gcccagggc agggaagcac
1141 aggaccatta gggagacacg agaaagccca ttgtctaga acagaggatt caagcagtgc
1201 accaaggaaa atgagggcca ggccaatgtg ctggagtggc ttgttcttg gctgagggtt
1261 ttgggtagtg ccaaagcgta aggtaagccc tgctttccag aagaatctag cagagtgtgg
1321 agcccagatg ggaactggaag gcctgggagg ggtcaggtg ccacaggac gggccacagc
1381 cagtgggtga gcaagaaga caatggccat ccattggtgg tcacacctgg aatcccagcc
1441 cattgggagg tcgaggcagg tggatcacct gaggtcagga gttcgagacc agcctggta
1501 acatggtgaa accctgtctc taataaaatt ataaaaatta gccgggctg gtggtgggta
1561 cctgtaatct cagctactca ggaggtggg tcaggagaat cgcttgaacc caggaggcgg
1621 aggttacagt gagctgagat agcaccattg cattccagcc tggacaacaa aagcgagact
1681 ctgtctcaaa aaaaaaaaaa aattagccag gcgtggtgg ggtgctgt ctgctcggg
1741 aggtgaggg atgagaatca ctccgggagg cagaggttgc aatgaacaa gatcacacca
1801 ctgactcca gcctgggtga cagagcaaga ctctgtctaa aaaaaaaaaa aagacagaag
1861 gatgtcagca tctgatgtg cctgtcacct tgaccctgag gatgccagtc acagctccat
1921 taactgggag ctaggaaaaa gagtcatctc tggatcatga catttcaaat ggtgcttaa
1981 tatggaagcc acacttggga tctgttgtct cctccagcat ggtagaagat gcctgaaaag
2041 taggggtggtg atcccatccc ctgcctcact ggaaggcga ggtggtggg tgggtgggg
2101 cctcaggctt ggggtcatgg gacaaagccc aggtgaatg ccgccctcc atctccctcc
2161 tctgagaca ggggcagcag ggcacactag tgtccaggag cagcttatga gggcccttca
2221 cctctccatc ctccaaaact gcagacccc accttcttcg gtgtgacccc agagctctga
2281 gcacagcccg ttccttccgc ctgcggccc cccacccagg cccaccccaa ccttatectc
2341 cactgctttt cagaggagtc tggccaacac aaatcctctt gttgtttgt ctgtctgtct
2401 gctgctccta gtctctgct ctcccagctc ctccagctcc gtttctttct taaactttct
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2521 agtggctctt ctccagcccc ctcatgtgga cagaactaca aaccccagca tgcactctg
2581 cctgaagtgc ctggagagt ctggtgtacc ccacctgcat tctgggaact gtagtttccc
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2701 gcctagtct ctctgctgac ctgcggcccc ggaagcgtg cgtcactgaa tgacagggg
2761 ggggtggagg cactggaagg cagcttcttg ctcttttgg tccccactt gagtcatggg
2821 ggtgtggggg ttccaggaaa ttggggctgg gaggggaagg gataccctaa tgcagactc
2881 aaggacaaaa agtcaactaca tcttgtctg gcctctatcc ccaagaaccc aaaaggactc
2941 aagggtggg atccaggagt tctgtatgt atggggggg gtgaaggaga gaacctgcat
3001 gaccctagag gtccctgtgg tcaactgagag tgtgggctgc catccctgc tacagaaacg
3061 gtgctcacct tctgcccac cctccaggga aaggcacaca ggggtgaggc cgaaccttcc
3121 gtctggtgcc acatcacaga aggaccttta tgacccctg gtggtctac cctgccactc
3181 cccaatgccc cagcccccat gctgcagccc cagggtctg ctggacacct gggctcccac
3241 ttatcagcct cagctctcac agcggaaacc aggcgtccg ccccccaccc ttcaggccag
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3361 tgggataggg gcggggcgag ggcagcact ggagagcccc ctcccactg cccctctct
3421 cgtgccctc cctcttcta aggaaaagg cagggtctg ctggagcagg cagcagagt
3481 gacgcacagt aacatgggca acttgaagag cgtggcccag gacgtgggc caccctgcgg
3541 cctggggctg gggctgggce ttgggtgtg cggaagcag gccc
3586 ggatcccatg cctgcctca ctgggaaggc gaggtggtg ggtgggggtg ggcctcaggc
3646 ttggggtcat gggacaaagc ccaggctgaa tgccgcctt catctccct cctcctgaga
3706 caggggcagc agggcacact agtgtgcagg agcagcttat gaggccctt caccctcat

3766 cctccaaaac tggcagaccc caccttcttg gtgtgacccc agagctctga gcacagcccc
 3826 ttcttctcgc ctgcccgcgc cccaccacag cccaccccaa ccttatactc cactgctttt
 301 cagaggagtc tggccaacac aaatcctctt gtttgtttgt ctgtctgtct gctgctccta
 361 gtctctgcct ctcccagtcct ctgagcttcc gtttctttct taaactttct ctgagctctt
 421 gaggtctcga aatcacgagg ctccgacccc tgtggaccag atgcccagct agtggccttt
 481 ctccagcccc tcagatgaca cagaactaca aaccccagca tgcactctgg cctgaagtgc
 541 ctggagagtg ctggtgtacc ccacctgcat tctgggaact gtagtttccc tagtccccca
 601 tgctcccacc agggcatcaa gctcttccct ggctggctga cctgacctca gccctagtct
 661 ctctgctgac tgcggccccg ggaagcgtgc gtcactgaat gacagggtgg ggggtggaggc
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 841 gtcactacat ccttctctgg cctctatccc caagaaccca aaaggactca aggggtggga
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 1381 cctcttctct aaggaaaagg ccagggtctt gctggagcag gcagcagagt ggacgcacag
 1441 taacatgggc aacttgaaga gctggcccca ggagcctgg ccacctgctg gcctggggct
 1501 ggggctgggc cttgggctgt gcggcaagca gggccagacc accccggccc ctgagccag
 1561 ccgggccccca gcatccctac tcccaccagc gccagaacac aggttaaggc caggcagcta
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 1681 aactgttagc tgagtcggga gggccagggt acaaatgcaa aagggtctat aatgtgcata
 1741 gaacaggaca gtctgggagg ctgagaagg agaccaggat cagagtcggc aggtgaagct
 1801 gggagtaagg gtgcagctga tagaatctgg ccagggtttg aatgctgctc tgccgcccag
 1861 agctgtttga ctttagagca gttacttaat ctctctgaac ctccatttat ataaaacgag
 1921 atatggcaat acttactcca tggggaagta agtttctagc tcacagcaag ccttcaacag
 1981 cagcgatgat tattagctg gagaagaaag gagctgacag cagtggttac aggagtga
 2041 aagtgggggc tcccagaaga gggagagagt tgggcaggaa actcggggcc ttggggtaa
 2101 caggctgaga agacagagcc accaggcttt tttccctgc tccagcccc tctcctcgtg
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 2761 taacaggggc ctccgggtga catctgggaa ggtgaaagg aaacaaaccc ttcctgatga
 2821 ccttatccct ggctcccaac agccccccga gctccccgct aaccagccc ccagaggggc
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 3001 gtaaggcctg gctcagatg gggccggaga gggaaagctc acccttcttt gaattggtec
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 3181 tcccacccct gcaccccttt tcccctctcc accctgcac cttctctccc tctccccac
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 3361 ccacctccct ctcccctatc caccctgca ccttctctcc ctctgcccc gtcccacgac
 3421 tgtaactctc ctccctctcc cccgtcacac ccttgacccc ctctctctc tccccatccc
 3481 atccctgac ccctctctcc tctgccccg tcccacccct aaacctctc tccctctgac
 3541 ccaacccacc cttgcacccc tccctctctc tcccctgct cctgctgca tctctctcc
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 3661 ctcccctgct caccctgac tcccgcctc tccagcgctc caccctaca cccctctcc
 3721 ctctgcccc ttcacccct gcacccctc ctccctctgc cccgacccac cctctgaccc
 3781 ctctctctc tcccctgct caccctgca ctctctctc ctctgcccc tcccacccct
 3841 acacccctc tccctctccc ccatccccc cctaaacccc tctctctct cccctgtccc

3901 atccctgcac ccttccctccc tctcccccgtc ccatccctgc acccttccctc cctctccccc
 3961 tcccacccct gcacccctcc tccctctgct cccatccccc ccttgcaccc cctctccctc
 4021 tgccccctacc ccacctctgc accctccctc cttctcccca tcccaccct gcacccctcc
 4081 tccctctgccc cctacccccc ccttgcaccc cctctccctc tcccacccc acccttgcac
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 4201 tgcactttctc ctccctctaa cccatccccc ccttgcaccc ttcttccctc tcccacatcc
 4261 caccactgca cccctccctc ctctccccc gtctccacccc tgcacccctc cctctgccc
 4321 ccaactccca tcccacccct gcacccctggc ctgtcctgac ctttgcactc cctcgacca
 4381 ggatgggccc tgcaccccaa gacgtgcct gggctccctg gtatttccac ggaaactaca
 4441 gggccggccc tccccggccc ccccgcccc tgagcagctg ctgagtcagg cccgggactt
 4501 catcaaccag tactacagct ccattaagag gtgacagctt cccggacgcc acagccctcc
 4561 ttgtcccaact gaggccccag aaaccccggtg acgaccttcc catgaccccc tcccttccca
 4621 gatcctaaca ccacgtgggc cccctccgcc ctccccagc acttgacaaa agcctggagg
 4681 agggcctccc tgtcccacac aacttccctg ttgtccctt cccacccctc tccctccag
 4741 gaggcgctcc caggccccc aacagcggt tcaagaggtg gaagccgagg tggcagccac
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 4921 ctgagagacc cggcgctac caaaaaggga gcggggtggc ggggcagttc ctaaggcttc
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19921 cctggtgatt caaatccacc caggtggcta aactacaaat aaaccgtacc catctactga
19981 acataaacta aataccacta ttaaggatac ttaaaataaa cacacttagt gaaccattta
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22381 cagggcctac tgccacccgc ttcctgttct ttagtcgaat gttagattcc tcttgctct
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22501	taccataaag	gactgtgcc	gatgttagga	gaactactaa	agtgcctacc	ccagctcatg
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481	aagccgaggt	ggcagccaca	ggcactacc	agcctaggga	gagcgagctg	gtgttcgggg
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661	acatcaagta	tccaccacaa	cggggcaacc	ttcgctcgcc	catcacagtg	ttcccgagc
721	gtcgcccttg	cgagagagac	ttccgaattc	ggacacgcca	gctggtcgct	tacgggggt
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841	gcattcagca	cggctgggac	ccaggaaaac	gtcgcttcca	cgtgctgccc	ctgctgctgc
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961	ccctggagca	ccccacgctg	gagtggtttg	gacccctccc	ctctgccttg	tacgcctccc
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1441	gctaccagcc	agaccccctg	aaggggagtg	ccgccaaggg	caccggcatc	accaggaaga
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28348	acgcacagca	gctggggaga	ctcttccgga	aggtttttga	tccccgggtc	ctgtgtatgg
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 30268 gcacccagag cttttccttg caggagcgtc agttgcgggg cgcagtgcgc tgggcgttcg
 30328 acctccccg ctcagacacc aacagccct gagagccgc tggtttccc ttccagtccc
 30388 gggagagcgg ctgcccgact caggtccgc

(2) INFORMATION FOR SEQ ID NO:2850:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1872 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2850:

1 aggagtttcg acccgcgctg gcgagtcagt agcgccaagt ttccactgg cgcgcaaact
 61 tgagttactt ttgagcgttg atactggcga agaggtcgcg ggcggtatta gcgtttgcag
 121 cgacttggct cgggcagctg acccaagtgt cctgtcttcc ttctctgct tgtctctagg
 181 ctctgaaact gcggagcggc caccggacgc cttctggagc aggtagcagc atgcagccgc
 241 ctccaagtct gtgcggaccg gccctggttg cgtggttct tgccctgcggc ctgtcgcgga
 301 tctggggaga ggagagagc ttccgcctg acagggccac tccgctttg caaaccgcag
 361 agataatgac gccacccact aagaccttat gccccaaggg ttccaacgcc agtctggcgc
 421 ggtcgttggc acctcgggag gtgcctaaag gagacaggac ggcaggatct ccgccacgca
 481 ccatctcccc tcccccgctc caaggacca tcgagatcaa ggagacttcc aaatacatca
 541 acacggttgt gtctgcctt gtgttcgtgc tggggatcat cgggaactcc acacttctga
 601 gaattatcta caagaacaag tgcattgcga acggtcccaa tatcttgatc gccagcttgg
 661 ctctgggaga cctgctgcac atcgctattg acatccctat caatgtctac aagctgctgg
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 781 ccgtgggaat cactgtgctg agtctatgtg ctctgagtat tgacagatat cgagctgttg
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 1321 tgttggtatt ggactatatt ggtatcaaca tggttccact gaattcctgc attaacccaa
 1381 ttgctctgta tttggtgagc aaaagattca aaaactgctt taagtcatgc ttatgctgct
 1441 ggtgccagtc atttgaagaa aaacagtcct tggaggaaaa gcagtcgtgc ttaaagttca
 1501 aagctaataa tcacggatat gacaacttcc gttccagtaa taaatacagc tcatcttgaa
 1561 agaagaacta ttcactgtat ttcattttct ttatattgga ccgaagtcat taaaacaaaa
 1621 tgaacatttt gccaaaacaa aacaaaaaac tatgtatttg cacagcacac tattaaaaata
 1681 ttaagtgtaa ttattttaac actcacagct acatatgaca ttttatgagc tgtttacggc
 1741 atggaaagaa aatcagtggt aattaagaaa gcctcgtcgt gaaagcactt aattttttac
 1801 agttagcact tcaacatagc tcttaacaac ttccaggata ttcacacaac acttaggctt
 1861 aaaaatgagc tc

(2) INFORMATION FOR SEQ ID NO:2851:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4286 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2851:

1 gagacattcc ggtgggggac tctggccagc ccgagcaacg tggatcctga gagcactccc
 61 aggtaggcat ttgccccggt gggacgcctt gccagagcag tgtgtggcag gcccccgtgg
 121 aggatcaaca cagtggctga acactgggaa ggaactggta cttggagtct ggacatctga
 181 aacttggctc tgaactgcg cagcggccac cggacgcctt ctggagcagg tagcagcatg

241 cagccgcctc caagtctgtg cggacgcgcc ctggttgccg tggttcttgc ctgcccgcctg
301 tcgcggatct ggggagagga gagaggcttc ccgcctgaca gggccactcc gcttttgcga
361 accgcagaga taatgacgcc accactaag accttatggc ccaagggttc caacgccagt
421 ctggcgcggt cgttggcacc tgcggaggtg cctaaaggag acaggacggc aggatctccg
481 ccacgcacca tctccctcc cccgtgccaa ggacccatcg agatcaagga gactttcaaa
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1321 agctttctgt tggatttggg ctatattggt atcaacatgg cttcactgaa ttcctgcatt
1381 aacccaattg ctctgtattt ggtgagcaaa agattcaaaa actgctttaa gtcatgctta
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1501 aagttcaaaag ctaatgatca cggatatgac aacttccgtt ccagtaataa atacagctca
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1681 taaaatatta agtgaatta ttttaacact cacagctaca tatgacattt tatgagctgt
1741 ttacggcatg gaaagaaaat cagtggaat taagaaagcc tcgtcgtgaa agcacttaat
1801 tttttcagtg tagcacttca acatagctct taacaacttc caggatattc acacaact
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2101 ttttcggaca ctggaaaacat ttaaatgac agggaggagt aacagaaaga gcaaggctgt
2161 ttttgaaaaa cattacactt tcaatagaa cccaaacctc agcattctgc aatatgtaac
2221 caacatgtca caaacaagca gcattgaaca gactggcaca tgtgccagct gaatttaaaa
2281 tataatactt ttaaaaagaa aattattaca tcttttacat tcagtttaaga tcaaacctca
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2401 cataccctgt gaagacaata ctatctacaa ttttttcagg attatttaaa tcttctttt
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2761 taaagcttat tactaatttt tgtattattt ttgtaaatag ccaatagaaa agtttgcttg
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2941 gggatgagat ggtgtgtaa gtatgtacaa gagaaaacgg aagagagagg aaatgagggtg
3001 gggttggagg aaacctatgg ggacagattc ccattcttag cctaacgttc gtcattgcct
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3121 gagtgaactt cgaaataaat tgggcccaag agctttaact cgggtctaaa atatgcccaa
3181 atttttactt tgtttttctt ttaataggct gggccacatg ttggaaataa gctagtaaatg
3241 ttgttttctg tcaatattga atgtgatggt acagtaaac aaaacccaac aatgtggcca
3301 gaaagaaaaga gcaataatga ttaattcaca caccataggg attctattta taaatcacc
3361 acaaaactgt tctttaattt catcccaatc actttttcag aggcctgtta tcatagaagt
3421 catttttagac tctcaatttt aaatttaatt tgaatcacta atattttcac agttttattaa
3481 tatatttaat ttctatttta atttttagatt atttttatta ccatgtactg aatttttaca
3541 tcttgatacc ctttcttctc ccatgtcagt atcatgttct ctaattatct tgccaaattt
3601 tgaacctaca cacaaaaagc atactgcat tatttataat aaaattgcat tcagtggctt
3661 tttaaaaaaa atgtttgatt caaaacttta acatactgat aagtaagaaa caattataat
3721 ttctttacat actcaaaacc aagatagaaa aagggtgctat cgttcaactt caaaacatgt
3781 ttcctagtat taaggacttt aatatagcaa cagacaaaat tattgttaac atggatgtta
3841 agctcctaaa gatttataaa agattttaac ctattttctc ctattattat cactgcta
3901 gtggatgtat gttcaaacac ctttttagtat tgatagctta catatggcca aaggaataca

3961 gtttatagca aaacatgggt atgctgtagc taactttata aaagtgtaat ataacaatgt
 4021 aaaaaattat atatctggga ggattttttg gttgcctaaa gtggctatag ttactgattt
 4081 ttattatgt aagcaaaacc aataaaaatt taagtttttt taacaactac cttatttttc
 4141 actgtacaga cactaattca ttaaatacta attgattgtt taaaagaaat ataaatgtga
 4201 caagtggaca ttatttatgt taaatataca attatcaagc aagtatgaag ttattcaatt
 4261 aaaaatgccac atttctggtc tctggg

(2) INFORMATION FOR SEQ ID NO:2852:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1719 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2852:

1 gggtgcagg ttctgaccg cgtggcgag tcatgagcgc caagtttccc actggcgcg
 61 aaacttgagt tacttttgag cgtggatact ggcgaagagg ctgcggggcg tattagcgtt
 121 tgcagcgact tggctcgggc agctgacccc aaagtgtctg tcttccctcc tctgcttgtc
 181 tctaggctct gaaactgcg cgccaccgg acgcttctg agcaggtagc agcatgcagc
 241 cgctccaag tctgtgcgga cgcgcctgg ttgcgctggt tcttgccctgc ggctgtcgc
 301 ggactgggg agaggagaga ggcttccgc cgcacagggc cactccgctt ttgcaaaccg
 361 cagagataat gacgccacc actaagacct tatggcccaa gggttccaac gccagtctgg
 421 cgcggtcgtt ggcacctgcg gaggtgccta aaggagacag gacggcagga tctccgccac
 481 gcaccatctc cctcccccg tgccaaggac ccatcgagat caaggagact ttcaaataca
 541 tcaacacggt tgtgtcctgc cttgtgttcg tgcgtgggat catcggggac tccacacttc
 601 tgagaattat ctacaagaac aagtgcctgc gaaacgggcc caatatcttg atcgccagct
 661 tggctctggg agacctgctg cacatcgta ttgacatccc tatcaatgtc tacaagctgc
 721 tggcagagga ctggccattt ggagctgaga tgtgtaagct ggtgccttcc atacagaaag
 781 cctccgtggg aatcactgtg ctgagcttat gtgctctgag tattgacaga tctgagctg
 841 ttgcttcttg gagtagaatt aaaggaattg gggttccaaa atggacagca gtagaaattg
 901 ttttgatttg ggtggtctct gtggttcttg ctgtccctga agccataggt ttgatataa
 961 ttacgatgga ctacaaaaga agttatctgc gaatctgctt gcttcatccc gttcagaaga
 1021 cagctttcat gcagttttac aagacagcaa aagattggtg gctgttcagt ttctatttct
 1081 gcttgccatt gcccatcact gcattttttt atacactaat gacctgtgaa atgttgagaa
 1141 agaaaagtgg catgcagatt gctttaaatg atcacctaaa gcagagacgg gaagtggcca
 1201 aaacggtctt ttgctggtc cttgtcttg cctctgctg gcttcccttt cactcagca
 1261 ggattctgaa gctcactctt tataatcaga atgatcccaa tagatgtgaa cttttgagct
 1321 ttctgttggt attggactat attggtatca acatggcttc actgaattcc tgcattaacc
 1381 caattgctct gtatttgggt agcaaaagat tcaaaaactg ctttaagtca tgcttatgct
 1441 gctggtgcca gtcatttgaa gaaaaacagt ccttgaggag aaagcagtcg tgcttaaaat
 1501 tcaaaagctaa tgatcacgga tatgacaact tccgttccag taataaatac agctcatctt
 1561 gaaagaagaa ctattcactg tatttcattt tctttatatt ggaccgaagt cattaaaaa
 1621 aatgaaaca tttgccaaa caaaacaaa aactatgtat ttgcacagca cactattaaa
 1681 atattaagt taattatttt aaaaaaaaa aaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2853:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2853:

1 cccactatgt tggccaggat ggtcttgatt tcttgacctc gtgttctgcc cgcctctacc
 61 tcccaaagtgc ccgggattac aggcgtgact gctgtgcccg gccccagcat cacttttata
 121 gctttctgtg cctcttcttc tgggccttgg tgtatgaagc cacttgccct tctctgttgg
 181 gaagcgagca gaatcagatt gctactcatg atgcagtcgg ggcaggcat actgtcacct
 241 ttggctgttg acacagttgt caggataggg gagaagccct ttaggtccgt cttcttgaca
 301 cagccctcct acctggttac gctggtgctt tcgcttggtt tagacaacca agacactga
 361 gaattatgct gtcctcagaa tgtctgatga aaagaacaga ttcacttttt ggacacaatg
 421 cccattagcc atctttggca gtgtttctga tcaaaggttc cccatgcctg ctctaggaaa
 481 gtaaaactttt ttcagaataa atcctcaaat ggattactga gtagtctttg caccattccc
 541 atcagcctaa tcagactgaa tggtcacgct cagtgcacaa agctgttttg ctgttaggat
 601 gtttcagtg tcttctgtt tcttggaaca gttcagttgt ttaaatttag taattcaatc
 661 ctgaccagtg taaaccact taattatttg agcctaaaga attcagctac ttctactctt

721 cataaatgtg cccaagtaaa tatgtgtttt taatattcaa ccctggaaaa ttagtaattc
781 agatgataaa agctcatgtt ttgtgtgtt tgtactcaga ttgtgaacag gcataattca
841 ctgatttaga cttagtatac ttgatgagaa tgctcaggtt gaagagatag ttctgtcagc
901 aatccaacat ctatagcaat gtggaaaaag taatcaactc atatttcacg aatttgatgt
961 atgttgtgat ttagagggca tgagataaag tttatatttg aactgtgttg ggtaggggga
1021 agaagagggt gcttaagcaa atgggggggt gattgaggaa caagatgtct ctaagatgag
1081 aagttatttt cttgcatcat agaagcactc tythyaccgc ngagtgattg tgttaactat
1141 aatcatttta tatctgtaca ttaaagcaga ttccctcaat taggcaaatt tggtagcca
1201 agcccaagtt attgtttgta cttgaaagta ataaagctgc atttccttaa aaatatattc
1261 tgtagttaag actttgtctt gctttccgga attcctgttt ttcttttctt ctagagacct
1321 cggcttgcaa ctggatcaaa cgctgtcgaa aggatgtaaa taggcagagc aactgttacc
1381 aagaaggcca ccacccccac ccaaaggcag tgaggagtgt ggggcttctg ctgggctccc
1441 ccgagtcca acagtaatca acagtcaggt gttgattgca acttttcaag gtcagccacc
1501 gggagttagc tattccctct aggaaccttg gagggcatat cttgtctgga ctcaacttgg
1561 ctgagaaatg cacaagatgc caaaggagga aggattatag ggggcgtgtg tgtgaccccc
1621 aagaccgatc ttccgctatc accctaattc ccggttcccc gctacccggg cgggggtgag
1681 tatgtgacat gtgcctaact ctacgcagca acttcggcag caggtgtcga tcttaactaa
1741 gcaggagctg cggctgccgg gtgtgccctc accaagccat gcgagcccg ggcgcgcttc
1801 tcgcccgcgt gtcgcccgtc ctgcttctgc tactgtctca ggtgtctgcc tcttctgcc
1861 tcggggctgc cctgcgtcc agaaacgaaa cttgtctggg ggagagctgt gcacctacag
1921 tgatccagcg ccgcccagcg gacgcctggg gaccgggaaa ttctgcaaga gacgttctgc
1981 gagcccagcg acccagggag gagcaggggg cagcgtttct tcgcccagcc tctgggacc
2041 tgcccggcgg cccggaccgt gaccggctg caggcagagg ggcggaggcg tcgacagccg
2101 gaccccggg accccaacc agggccactg tcccctggag gtggaaaggt gctcggggtc
2161 aggagccttc tgaactttt gggagaggga accccacggc cctccagctc ttccctcaga
2221 tctcagagga ggaagagaag ggtcccagag gcgctgtcat ttccgggctg agccaggagc
2281 agagtgtgaa gacagtcccc ggagccagcg atctttttta ctgtccaagg agagccggga
2341 aactccaggg ttcccaccac aagcccctgt ccaagacggc caatggactg gcggggcagc
2401 aagggtggac aattgcactc ccgggcccgg cgctggccca gaatggatcc ttgggtgaag
2461 gaatccatga tccctgggggt ccccgcggg gaaacagcac gaaccggcgt gtgagactga
2521 agaaccctct ctaccgcgtg acccaggagt cctatggagc ctacgggctc atgtgtctgt
2581 ccgtgggtgat cttcgggacc ggcacattg gcaacctggc ggtgatgtgc atcgtgtgcc
2641 acaactacta cttcgggagc atctccaact cctcttggc caacctggc ttctgggact
2701 ttctcatcat cttcttctgc cttccgctgg tcatcttcca cgagctgacc aagaagtggc
2761 tgggtggagga cttctcctgc aagatcgtgc cctatataga ggtcgttct ctgggagtca
2821 ccactttcac cttatgtgct ctgtgcatag accgcttccg tgctgccacc aacgtacaga
2881 tgtactacga aatgatcgaa aactgttctc caacaactgc caaacttgct gttatatggg
2941 tgggagctct attgttagca cttccagaag ttgttctccg ccagctgagc aaggaggatt
3001 tggggttttag tggccgagct ccggcagaaa ggtgcattat taagatctct cctgatttac
3061 cagacaccat ctatgttcta gccctcacct acgacagtgc gagactgtgg tggatttttg
3121 gctgttactt ttgtttgccc acgcttttca ccatcacctg ctctctagt actgcgagga
3181 aaatccgcaa agcagagaaa gcctgtacct gagggaataa acggcagatt caactagaga
3241 gtcagatgaa ctgtacagta gtggcactga ccattttata tggattgggc attattcttg
3301 aaaatatctg caacattgtt actgcctaca tggctacagg ggtttcacag cagacaatgg
3361 acctccttaa tatcatcagc cagtccctt tgttctttaa gtccgtgtgc accccagtc
3421 tcttttctg tctctgcaaa ccttcagtc gggccttcat ggagtgtgc tgctgttgc
3481 gtgaggaatg cattcagaag tcttcaacgg tgaccagtga tgacaatgac aacgagta
3541 ccacggaact cgaactctcg cctttcagtg ccatacgcgg tgaatgtcc acttttgctt
3601 ctgtcggaac tcattgtctg aggacagtac ttggttgggt cagattttat tgtttgattt
3661 tcatatcccg tgaagtttt taattcatat ttttccttat agggaaaaat gcaaaaaaga
3721 aacaataaag aaagaaatat taactactgt agaactgatt ttacaaatta atatttggc
3781 tttgaaaaaa agtttctatt tagttattta agaagaatga gaaggccaat agttttgat
3841 tattttatct ggtatggtgc taatatttta tttgaaaaaa gttactgcaa cttacttaa
3901 aattgctaac gtttttctt ctttataaaa tacaattatt gtatattaat tatagcaatg
3961 tgattttgta ggttatttta tatttgagtt gtgattgaaa gtatgttgta tatggtattg
4021 tgagatgatt tgtacttggg agcattcaca aagtagcacc aaataaatta cactttattc
4081 tttaatgtca ttgtcaatct acttttaacc aatattcaat aaatcttcta attgccttaa
4141 aaaaaaaaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2854:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1578 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2854:

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1 gggctgcagg tttcgacccg cgctggcgag tcatgagcgc caagtttccc actggcgcg
61 aaacttgagt tacttttgag cgtggatact ggcggaagagg ctgcgggagg tattagcggt
121 tgcagcgact tggctcgggc agctgacccc aaagtgtctg tcttccttcc tctgcttgte
181 tctaggctct gaaactgcgg cggccaccgg acgcttcttg agcaggtagc agcatgcagc
241 cgctccaag tctgtcgga cgcgccctgg ttgcgctggt tcttgctgc ggctgtgcg
301 ggatctggg agaggagaga ggcttcccgc ccgacagggc cactccgctt ttgcaaaccc
361 cagagataat gacgccaccc actaagacct tatggcccaa gggttccaac gccagctcgg
421 cgcggtcggt ggcacctgcg gaggtgccta aaggagacag gacggcagga tctccgccac
481 gcaccatctc ccctccccc tgccaaggac ccacgagat caaggagact ttcaaataca
541 tcaacacggg tgtgtcctgc cttgtgttcg tgctggggat catcggaac tccacacttc
601 tgagaattat ctacaagaac aagtgcctgc gaaacgggtc caatatcttg atcgccagct
661 tggctctggg agacctgctg cacatcgctc ttgacatccc tatcaatgtc tacaagctgc
721 tggcagagga ctggccattt ggagctgaga tgtgtaagct ggtgcctttc atacagaaag
781 cctccgtggg aatcactgtg ctgagcttat gtgctctgag tattgacaga tatcgagctg
841 ttgcttcttg gtagtagaatt aaaggaattg gggttccaaa atggacagca gtagaaattg
901 ttttgatttg ggtggtctct gtggttcttg ctgtccctga agccataggt tttgatataa
961 ttacgatgga ctacaaagga agttatctgc gaatctgctt gcttcatccc gttcagaaga
1021 cagcttttcat gcagttttac aagacagcaa aagattggtg gctgttcagt tctatttct
1081 gcttgccatt ggccatcact gcattttttt atacactaat gacctgtgaa atgttgagaa
1141 agaaaagtgg catgcagatt gctttaaatt atcacctaaa gcagagacgg gaagtggcca
1201 aaaccgtctt ttgcttggtc cttgtctttg ccctctgctg gcttccctt cacctcagca
1261 ggattctgaa gctcactctt tataatcaga atgatcccaa tagatgtgaa cttttgagct
1321 ttctgttggt attgactat attggtatca acatggcttc actgaattcc tgcattaacc
1381 caattgctct gtatttggtg agcaaaagat tcaaaaactg ctttaaggct gggccacatg
1441 ttggaataa gctagtaatt ttgtttctg tcaatattga atgtgatggt acagtaaac
1501 aaaacccaac aatgtggcca gaaagaaaga gcaataataa ttaattcaca cccatatg
1561 attctattta taaatcac
  
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(2) INFORMATION FOR SEQ ID NO:2855:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13611 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2855:

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1 aggagtttctg acccgcgctg gcgagtcattg agcgccaagt ttccactg cgcgcaact
61 tgagttactt ttgagcgttg atactggcga agaggctgag ggcggtatta gcgtttgcag
121 cgacttggtt cgggcagctg acccaagtgt cctgtcttcc ttctctgctg tgtctctagg
181 ctctgaaact gcggagcggc caccggacgc cttctggagc aggtagcagc atgcagccgc
241 ctccaagtct gtgcggaccg gccctggttg cgctggttct tgccctgcggc ctgtcgcgga
301 tctggggaga ggagagaggg ttcccgcttg acaggggccac tccgcttttg caaacccgag
361 agataatgac gccacccact aagaccttat ggccaagggt ttccaacgcc agtctggcgc
421 ggtcggtggc acctgcggag gtgcctaaag gagacaggac ggcaggatct ccgccacgca
481 ccactctccc tcccccgctg caaggaccca tcgagatcaa ggagactttc aaatacatca
541 acacggttgt gtccctgcctt gtgttcgtgc tggggatcat cgggaactcc acacttctga
601 gaattatcta caagaacaag tgcattgcga acgggtccaa tatcttgatc gccagcttgg
661 ctctgggaga cctgctgcac atcgctattg acatccctat caatgtctac aagctgctgg
721 cagaggactg gccatttgga gctgagatgt gtaagctggt gcctttcata cagaaagcct
781 ccgtgggaat cactgtgctg agtctatgtg ctctgagtat tgacagatat cgagctgttg
841 ctcttgagg tagaattaaa ggaattgggg ttccaaaatg gacagcagta gaaattgttt
901 tgatttggtt ggtctctgtg gttctggctg tccctgaagc cataggtttt gatataatta
961 cgatggacta caaaggaagt tatctgcgaa tctgcttgct tcatcccggt cagaagacag
1021 ctttcatgca gttttacaag acagcaaaaag attggtggct attcagtttc tatttctgct
1081 tgccattggc catcactgca tttttttata cactaatgac ctgtgaaatg ttgagaaaga
1141 aaagtggcat gcagattgct ttaaatgac acctaaagca gagacgggaa gtggccaaaa
1201 ccgtcttttg cctggtcctt gtctttgccc tctgctggct tccccttcac ctcagcagga
1261 ttctgaagct cactctttat aatcagaatg atcccaatag atgtgaactt ttgagctttc
1321 tgttggtatt ggactatatt ggtatcaaca tggcttctac gaattcctgc attaacccaa
  
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1381 ttgctctgta tttggtgagc aaaagattca aaaactgctt taagtcatgc ttatgctgct
 1441 ggtgccagtc atttgaagaa aaacagtcct tggaggaaaa gcagtcgtgc ttaaagttca
 1501 aagctaataa tcacggatat gacaacttcc gticcagtaa taaatacagc tcactctgaa
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 421 ctggcgcggt cgttggcacc tgcggagggt cctaaaggag acaggacggc aggatctccc
 481 ccacgcacca tctcccctcc ccctgccaag ggaccatcg agatcaagga gactttcaaa
 541 tacatcaaca cggttgtgtc ctgcttgggt ttcgtgctgg ggatcatcgg gaactccaca
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 1381 aaccccaattg ctctgtattt ggtgagcaaa agattcaaaa actgctttta gtcattgcta
 1441 tgcgtgctgt gccagtcatt tgaagaaaaa cagtccttgg aggaaaagca gtcgtgctta
 1501 aagttcaaaag ctaatgatca cggatatgac aacttccgtt ccagtaataa atacagctca
 1561 tcttgaagaa agaactattc actgtatttc attttcttta tattggaccg aagtcattaa
 1621 aacaaaatga aacatttgcc aaaaacaaaac aaaaaactat gtatttgac agcacactat
 1681 taaaatatta agtgaatta ttttaacact cacagctaca tatgacattt tatgagctgt
 1741 ttacggcatg gaaagaaaat cagtgggaat taagaagacc tcgtcgtgaa agcacttaat
 1801 tttttacagt tagcacttca acatagctct taacaacttc caggatattc acacaacact
 1861 taggcttaaa aatgagctca ctacagaattt ctattctttc taaaaagaga tttattttta
 1921 aatcaatggg actctgatat aaaggagaa taagtcactg taaaacagaa ctttttaaatg
 1981 aagcttaaat tactcaattt aaaattttta aatcctttta aacaactttt caattaatat
 2041 tatcacacta ttatcagatt gtaattagat gcaaatgaga gagcagttta gttgtgcat
 2101 ttttcggaca ctggaaacat ttaaatgatc aggaggaggt aacagaaaga gcaaggctgt
 2161 ttttgaaaat cattacactt tcaatagaag cccaaacctc agcattctgc aatagttaac
 2221 caacatgtca caaacaagca gcatgtaaca gactggcaca tgtgccagct gaatttaaaa
 2281 tataatactt ttaaaaagaa aattattaca tcttttcat tcaagtaaga tcaaacctca
 2341 caaagagaaa tagaatgttt gaaaggctat cccaaaagac ttttttgaa ctgtcattca
 2401 catacctgt gaagacaata ctatctacaa ttttttcagg attattaaaa tcttctttt
 2461 tcaatctgt agcttaaaact ctgtttggtt ttgtcatctg taaatactta cctacatata
 2521 ctgcatgtag atgattaaat gagggcaggc cctgtgctca tagctttacg atggagagat
 2581 gccagtgacc tcataataaa gactgtgaac tgcctggtgc agtgtccaca tgacaaaggg
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(2) INFORMATION FOR SEQ ID NO:2856:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12461 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2856:

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 4621 ggagctagga taattcttgg ctgccgaagg atttaggcag tgcgtgtgca tctgccggg
 4681 tccccccgt ttttagggtc agtgcacttt ttttgcctt tcgtgacct gactaaagag
 4741 aaaggatgtc aagggaatga aaatcctgga atgtgtctga tcaattgaaa tgtacaaaat
 4801 tgggcagata agctgcatgg ctaaattgtt aggaggaaga ggcaaggcag tagtggagaa
 4861 gggggaggca gtggatccca cacaagcctg atgccaggg attcggaatt caaaatcccc
 4921 ccagcctacc ttcagtcctc tgacctgctt ctcagcccca ccttaggtca ctggtttcta
 4981 tggagttacc ctactgaatt gaattattgaa tagttaattt ctctctccaa tcaatttccc
 5041 cacctaattt tgaagatat acatcatctg gggtaccctg tgccctacac agcatgtgaa
 5101 gtgatgggt accccctaaa gagagggtca tctgaatgg ggaagtggcc ccaagctag
 5161 gaataactgt gatttcttgt cttagtcat gtgccaatgt taagtaagct tcagtggata
 5221 gtgctgtcct accaagttcc ttgtagaagc cagccggatt tcaacaggc agcattccac
 5281 agcatttccc tgagcctgct tcaagagggg tgggggaagt cccttttcag gtgtttatct
 5341 cctctgcatt tgtgtaact cctgaaggt ggataagcca agggcatgag ggggagcaa
 5401 aaggtgaact catgttaagg agggaaaaa ataaagagcc ctttttctg tgtttcttgc
 5461 tgatggcagg ctgtgtgctt catctgctt tatctgctc gctagctctg actctactgt
 5521 gatccagcat gtctctcggc gtttgaggag acatcccca ctgacctgt ctttctctcc
 5581 ccagcagctc taggcgctga gctcagcgc gtgggtgaga acggcgggga gaaaccact
 5641 ccagtcac cctggcggt ccgcgggtcc aagcgctgct cctgctcgtc cctgatggat

5701 aaagagtgtg tctacttctg ccacctggac atcatttggg tcaacactcc cgagtaagtc
5761 tctagagggc attgtaaccc tattcattca ttagcgctgg ctccactgga gccaggtttt
5821 agagtttctt ttctagggac tctgaaggta gtccttctaa caccatccaa gtgcctcagt
5881 ggggacagtt tccctctatt cctgaaaata acgacagctt cgttcttagc aaccaagggg
5941 aggggtcttct gagggcccgat agctcaggct actcatgatg ggacaagcag gaggccactg
6001 cacgtttcaa atgaggaact ttcatgtaga gggcctcagg gggacactct cacagtggca
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6121 ctcatgggag ggtggagact gagaggcaga agtgatgata tagaggggta gaatcactta
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6241 tgtagcagag ctagaactgg agcccgatt tcttttgctg ctatattttc cctttagaaa
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6421 ataaacaagc acacatttac tatgcataca atgtaccgtt atgacaaagg aggaccaaaa
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6601 tggagagccc tctggctatg agtccctcca caaccatag gtaccaccga ctggcaggag
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6721 cttttagcag tatcctccgt ggtttgagtt gaaaataagt ttaaaaaatc ctgtgagtca
6781 tggttttgca ttgaaacctc ttccactgt gtaccacaa atagttaact aaatagacca
6841 ttagaaaagg aagaaaatat aaagcagatg ccaagcagag atgtcctaatt ttttgacaaa
6901 aaagcaatgt tgcttgtgtc aagaagaaac tgaactttgt gaagagttga aatggaattc
6961 caatgaatta gaaaaacttg tttctcctg cctggatata tacagtccag gccattgatg
7021 cacaggtgtt cctggctgtt gttacacttt accctctgaa atgatgtctc caagtgtat
7081 gtgatgagct ccttgtgtgc ccagtggaa atgtgtgtcc atgtgtcatt ttaaagacta
7141 ttaattacac taatatagtt tctttctctc tttggataat aggcacgttg ttccgtatgg
7201 acttggaaag cctaggtcca agagagcctt ggagaattta ctcccccacaa aggcaacaga
7261 ccgtgagaat agatgccaat gtctagcca aaaagacaag aagtgtctga atttttgcca
7321 agcaggaaaa gaactcaggt gagcagaaac acctttgctt ttcaatcagt ttaacagcct
7381 cctgaactcc ttctatcat ggtactgcct tctgtttta gagagactaa cagagacatt
7441 gaaagtccag gtaaagctga atataacatt gctgaaatgt ttttcttctg gtatttttaac
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7561 aagcttgga aaaaagtgtat ttatcagcag ttagtgagag gaagaaaaat cagaagaagt
7621 tcagaggaa acctaagaca aaccaggtaa gagggaagga agaaaaatta ggtaagaggt
7681 tcacaagaac aactagcccc agtcagtgat gccagcagcc tgttctcca gcccttctta
7741 cccgggcagg tgaaagactt agaaaacagt agcagaggag atctatgcat cctatagatt
7801 aaaaggagca aaagaatccc tcttaaatat ttccatgaag ctctggaatg caaacccgatg
7861 tctctgttac cttagcaca taccatttca tctacagga gatttcccaa ccaaaatata
7921 tccagagatg cctttgtcat tgggttatat acagcctttg cctctctgag tcaatgtatt
7981 taccacttcc cctgagaaat cgaatcat tttggggagc ggacatttag aaaaagaatc
8041 aaagtgtcat ggataatcaa attcttcaat aagttgcagt tattcagatg gccaaaggaa
8101 aaataaagtc attagatagg gttggtagaa tttagaacat gctgttttcc aggtttatgg
8161 tctctgtttt tttttttttt ttttttttaa tagggaaatg tttttgtgac agagccaatg
8221 tcattccaaa aagctctctc ttttcttgtt cagtcagtgt ctgggacaga gaagggatct
8281 ggattaggca acatcataga gttgctctga gctgctctt ggtgataacc cttccaaatc
8341 ctaaaacttt tggaattcac aagctcaaag gaggaaacct actctctgat ctaccacatg
8401 ttctgcattt ttctatcatg gtctatggaa acttctctta gaaatccagt ggcaagaagt
8461 tctatgatta aagtgttctg agctcaggcc aggcagtcac gaactacttc tgagttgttt
8521 actactgatt tgtggggcag cctcagctat cggtttcttc acacctgctt atgagagtat
8581 ccatatttat ggtcgaggc agtaatgctc ccacagagat cagtttctga actaacctgg
8641 aattttttat ggttttttat tatgccaaat attaaatcaa cattacagtt ctccctctg
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8761 ataaagtatt tctctgggc ctactgtatg ctcttttyt tttctctct tttcaactaa
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8881 gcagggtcgc atagtatga aggttgggat ggggctacgg aagaaaccag aacaactcta
8941 gtttatttaa aacctgtatt tactgccac ttccccttag acttgaccat atgaccctt
9001 gctccccatt ctaagcatag gggcaggctt tatttttaca atggtaatag atgatcac
9061 ttgaggtttt atcaaaagag tgccggcgggt ggtgaaagtt cacaaccaga ttcaggtttt
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9301 accgagcaca ttggtgacag accttcgggg cctgtctgaa gccatagcct ccacggagag
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9421 tggttcctga ctggcaaaagg accagcgtcc tcgttcaaaa cattccaaga aagggttaagg
9481 agtcccccca accatcttca ctggcttcca tcagtggtta ctgctttggt ctctctcttc
9541 atctggggat gacaatggac ctctcagcag aaacacacag tcacattcga attcgggtgg
9601 catcctccgg agagagagag aggaaggaga ttccacacag ggggtggagt tctgacgaag
9661 gtctaagggt agtggtttgt tctgactcag gcgcctggca catttcagggt agaaaactcca
9721 aagtcacacac aaagattttc taaggaatgc acaaattgaa aacacactca aaagacaaac
9781 atgcaagtaa agaaaaaaa aagaaagact tttgtttaaa tttgtaaaat gcaaaactga
9841 atgaaactgt tactaccata aatcaggata tggttcatga atatgagtct acctcaccta
9901 tattgcactc tggcagaagt atttcccaca tttaattatt gcctcccca actcttccca
9961 cccctgctgc ccttctctcc atccccata ctaaatccta gcctcgtaga agtctggtct
10021 aatgtgtcag cagtagatat aatattttca tggtaatcta ctagctctga tccataagaa
10081 aaaaaagatc attaatcag gagattccct gtccttgatt tttggagaca caatggtata
10141 ggggtgttta tgaaatata tgaaaagtaa gtgtttgta cgctttaaag cagtaaaatt
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10561 acggtctaaag ctaattatat aaagaatttt atctgtatct taaatgttga ttttatactg
10621 cattgaggtg aaaacacaaa acaaaaaagc agctttaaca cctctgtctt ctcttgggtg
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10741 ctcaggctat tggcaggatt cacagtttaa gctgatggtg tggtagaga tgctttatcc
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10861 aaagtatatat accaaagtgt cttttagaaa atggcctgct cagagcaagt agaggtttcc
10921 aatggctttt tattttctca cattaaggat gttgtttctt aaggaacatt gagtaccatt
10981 gcttcttctg gtatgcctag gactgccgtg tgcccattga ggtagagaca ccaggtactg
11041 attctagggtc ctctgccaca aagcaccact tctctccac tttgccttgg ctggccttgt
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11161 attctctaag agcttgatta gcctcagaga atcttctctg cccttctcta atagtgtctg
11221 aaggaattcc tggcatttaa caaatattag catgtagtga tcaactgtct cctaacagtg
11281 acacatcaga aggatttcaa ataacagtct tcaggcatcg gtaatcaatg tcctgtgcag
11341 agtctccgtc ctcatgtatc ctcatTTTTt tctttaaggc acagtccaat gtctttgggg
11401 aattgtttat aaagcttact ttatccataa actgtttctc agtgcgtgac tctgaagaaa
11461 attttgaagt tttgcccatg ttgacaaggt gcttggctcg aacttgcca gtatttaatc
11521 ttgagcaaac gattcaattt ccttctatcg tgagttttct catctatgaa acaagggagt
11581 tgaggggagt ttctttcata cctctgagaa agagtttgag attacataaa gaagttgaa
11641 tggcatgaaa aaaaataaag atctgagctt agaagacatg gatctaatac atttaagagg
11701 aagtcagaat cagagaagcc actgaacaaa acagtccaaa cggagcatag taagtcagat
11761 tgatgagttt tggttgggtt tttcatcagt caaaccttg agccccctt tcccatgctt
11821 cctgcttcag tatccagtag gaaaaatgaa agggatgatg tagacactct agggcatgag
11881 gatttgcagt aaataagttg ggagactcac agaaaattaa tatttttcaa acatgaagac
11941 gaaacattca attatattac agtccacatc agcttgaagg gtaaaactgat gggatgatct
12001 gtcacatttc ttgctctgtt tccagtaaaa gcatggtttc tggaaacca cttaggacag
12061 ctttctctct ttacactgat agcccaggca agctttgatc tcagaactcc agaaccaga
12121 gaactctagg tggaaatgtg taacttttgc cagggcagag ggaacaccta ctaataggta
12181 cttcatttgc accaccagag attggcatct tttttgatgg atccactggc tttgatactg
12241 cctgtactcc cccaaaacac agcttgggta ttggactaat cttagagctcc cttaggagaa
12301 ctcttgctga cattaagaaa gagcaacatt ttgtctttcc aggtgaaaat ccaaggccaa
12361 aaagggagtg actcacctaa gatcacagaa ggagctgtag catctctgga gcctgaacac
12421 ttaagttaag cagcactatt tcacgcagag ggcattgaatt c

(2) INFORMATION FOR SEQ ID NO:2857:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1251 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2857:

1 ggagctgttt acccccactc taataggggt tcaatataaa aagccggcag agagctgtcc
61 aagtcagacg cgcctctgca tctgcgccag gcgaacgggt cctgcgcctc ctgcagtccc
121 agctctccac caccgccggg tgcgcctgca gacgctccgc tcgctgcctt ctctcctggc
181 aggcgctgcc ttttctcccc gttaaagggc acttgggctg aagatcgct ttgagatctg

241 aggaaccgcg agcgctttga gggacctgaa gctgtttttc ttcgtttttc tttgggttca
 301 gtttgaacgg gaggtttttg atcccttttt ttcagaatgg attattttgct catgattttc
 361 tctctgtgtg ttgtggcttg ccaaggagct ccagaaacag cagtcttagg cgctgagctc
 421 agcgcggtgg gtgagaacgg cggggagaaa cccactccca gtccaccctg gcggtcccg
 481 cggtccaagc gctgctcctg ctgctcctg atggataaag agtgtgtcta cttctgccac
 541 ctggacatca tttgggtcaa cactcccgag cacgttggtc cgtatggact tggaagccct
 601 aggtccaaga gacgtttgga gaattttactt cccacaaagg caacagaccg tgagaataga
 661 tgccaatgtg ctagccaaaa agacaagaag tgctggaatt tttgccaagc aggaaaagaa
 721 ctcagggtcg aagacattat ggagaaagac tggataatc ataagaaagg aaaagactgt
 781 tccaagcttg ggaaaaagtg tatttatcag cagttagtga gaggaagaaa aatcagaaga
 841 agttcagagg aacacctaag acaaaccagg tcggagacca tgagaaacag cgtcaaatca
 901 tcttttcatg atcccaagct gaaaggcaag cctccagag agcgttatgt gaccacaac
 961 cgagcacatt ggtgacagac ttcggggcct gtctgaagcc atagcctcca cggagagccc
 1021 tgtggccgac tctgactctt ccaccctggc tgggatcaga gcaggagcat cctctgctgg
 1081 ttcctgactg gcaaaaggac agcgtcctcg ttcaaaacat tccaagaaag gtttaaggagt
 1141 tcccccaacc atcttctactg gcttccatca gtggtaactg ctttgggtctc tcttttcatc
 1201 tggggatgac aatggacctc tcagcagaaa cacacagtca cattcgaatt c

(2) INFORMATION FOR SEQ ID NO:2858:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1166 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2858:

1 ctgcccagc cgaacgggtc ctgcccctcc tgcagtcacca gctctccacc gccgcgtgcg
 61 cctgcagacg ctccgctcgc tgccttctct cctggcagcg gctgcctttt ctccccgtta
 121 aagggcactt gggctgaagg atcgctttga gatctgagga acccgcagcg ctttgaggga
 181 cctgaagctg tttttctctg ttttctttg ggttcagttt gaacgggagg tttttgatcc
 241 ctttttttca gaatggatta ttgtctcatg attttctctc tgcgttttgt ggcttgccaa
 301 ggagctccag aaacagcagt cttaggcgct gagctcagcg cgggtgggtga gaacggcggg
 361 gagaacccca ctcccagtc accctggcgg ctccgcgggt ccaagcgctg ctctgctcgc
 421 tcctgatgg ataaagagtg tgtctacttc tgcacactgg acatcatttg ggtcaacact
 481 cccgagcagc ttgttccgta tggacttgga agccctaggt ccaagagagc cttggagaat
 541 ttactttcca caaaggcaac agaccgtgag aatagatgcc aatgtgctag ccaaaaagac
 601 aagaagtgtc ggaatttttg ccaagcagga aaagaactca gggctgaaga cattatggag
 661 aaagactgga ataatacataa gaaaggaaaa gactgttcca agcttgggaa aaagtgtatt
 721 tatcagcagt tagtgagagg aagaaaaatc agaagaagtt cagaggaaca cctaagacaa
 781 accaggtcgg agaccatgag aaacagcgtc aaatcatctt ttcattgatc caagctgaaa
 841 ggcaagccct ccagagagcg ttatgtgacc cacaaccgag cacattggtg acagacttgc
 901 gggcctgtct gaagccatag cctccacgga gagccctgtg gccgactctg cactctccac
 961 cctggctggg atcagagcag gagcatcctc tgcgtgttcc tgactggcaa aggaccagcg
 1021 tcctcgttca aaacattcca agaaagggtta aggagttccc ccaaccatct tcaactggctt
 1081 ccatcagtg taactgcttt ggtctcttct ttcattctgg gatgacaatg gacctctcag
 1141 cagaaacaca cagtcacatt cgaatc

(2) INFORMATION FOR SEQ ID NO:2859:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14879 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2859:

1 gatattctat taatacagag atacagaaag aaatacataa aaaaatagttt tatcaaatac
 61 tttccagcat tcaagtgtag cctcaaaaagc aagaataggc caggagtggg ggctcacgct
 121 gtaattccca gactgtggg agggcaagggt aagaggattg cttgaggcca ggatttcaag
 181 accagcctag gcaacatagt gagatcccta tctctacgaa aaaattttta aacttagctg
 241 ggcattgtgc ttgagcctgt tgtcccagct actcaggagg tgaagtagga gtgtcacttg
 301 agcccaggag gttgaggctg cagttagcta taactgcacc actgcactcc agccttggag
 361 acagagttag accctgtccc caaaaaaatt aaaattgaga aaaaaaaaaa ggcaagaaca
 421 gccacagcaa actttctatt ggggaaaaaaa aaaatcctc ctctttacat ctctcccttc
 481 ctcccttccc ctttctgaga gtgactgtgg ccaaaaggag cattttcccc ctgcagtcct
 541 ctgaggggtg ggttggggct atgaagctat ccttcattt cactcctttg tccagctctt
 601 ttcacctcta gttcttctcc ccgcatctct gtctagcagt gccttaagtg gaggaggggt
 661 tggggcatca agcttgtaaa actggtttgt tggggttctc ctctccctc catttcttga
 721 ttcttgggaa aatgtcttgc tgggaggtcg cctggcgagt gccctagctg cttctgttgg
 781 gcttgaatgg ggttccctc tggccctaca ggaggaaaaa ggaactgctg ccagagggag

841 aaatggagag atggacagag aaggcaggtg ccacccctcg cccctgacac acaaagaaaa
901 agacacggaa attctctctc tctctctctc tctctctctc cctctctctc cctctctctc
961 ctctctctct ctctctctca cacacacaca cacacacaca cagcgcgcg cagcgcgcg
1021 ccgcgcgcg aggcacacgt cttgcaaatt caggattcaa agagacagg gcaccattat
1081 atttggcacg gtggggcctt ccaggtctga aatcctgcat tcttccctac tatttacttt
1141 ccccgagctc gagaaggggc aggtgtgggc ggatggctgg ccacgttttg tgtttccaat
1201 tcataattcac gggatgacac agacggggcg tggtagtgcc gcttggggcg gcttggggcg
1261 tttcattttg cccactttct ccactgaag gctgggcgtt gctggaacct gcaggggcag
1321 cctcagcaag gtgggtgggc gtggagtggg gtgggagaag ggactccagc tgaagtagaa
1381 cccaggctgg acctgagaat attggggagg gcatgggcgg tggtttccgg gtaggggctt
1441 tgaggacatg ttggtcctga ctgttgcag tgtttggtca aagttgccaa aaggttaaaa
1501 aaaaaaaagt agggggagtc cctgccaaga catatttccc aggccacctt tcttccgcg
1561 gagtgttggg ggggaggcgc tgcttggaa ctgtgaatgt gacatcagct ctcctctct
1621 ctcccaaggt cggctttgga gagggaggtc agggcacctt tgcttggcac aggcacgctg
1681 gcttccggtc cagtgcggcc tgctctccgg gactgtgtcg ctcctgggac cccggggcta
1741 ggtcagggtg agcgacagc ggaggccagg cgcgccggca gaggcctggg gtagatgggt
1801 gaggcatctc tgggtgtggg gtgtgtggg ggtgtgggag ggagagttct tgcctctct
1861 tctcccatct ccaactcttg ctccagtgcc tcttttagag gatgcatgtc attatggacc
1921 tgtcgtgccc actgtccctg ttccccagc tgtgacttcg agggaggtct ggggatctga
1981 gctgttccaa acccacggct ttgctgttgg gataaaaaact gtccttttga ttttagaagg
2041 aggagggaaa aaaggttttc cagcatgtgt gttgtgccag tcttggaagt tcatccgtgc
2101 ttgaattcca cctccatccc ccagaaaaac tggagtaaaa caaaaagagg agatggacaa
2161 agtgtgtatt tgatggcatc ccctgggaag agactctaaa tttatcccat aggtcttact
2221 ggcgccactg gagcgctttg gtggagaaca acaaaaaatt ctgggtgtct agttgtctaa
2281 cctgaaaaat gggactagcg gaaaaagcca atgtgttcca tgcacctttt gctttcttta
2341 ttaaggcatg atgtcacctg tacagtaact gccctgtgtg tacttcaggg ggggatttca
2401 aggttagata gacaggaaat tgttttgaat atgtaaacac attattaaat gtgaagtatt
2461 atctgattcc ttgttcgaat ggcatttccc tctcagcacc accttccctg catattcact
2521 taaccttgta caagaacacc tttttgccct aaatgaagac acccccccac aaaaaagagt
2581 cccagaaaaa atgtccctgc ttgtgcccga ataaatagaa tattctgagg tgcattctct
2641 ctctctatgt taggcaacat tccctgaccc tccctggccc ccaagccagg ttgcgttttt
2701 ttctgccatt tagaagggtt ttcttttttg tccctagtaa acatcagccc ctgtagctct
2761 tcatctcccc ctgggtgtct tctcccgcga tgtcttaaga ttgggtggc cagaccaatct
2821 taagatttaa gttctgtgtg aaaaacacct ttgcttttca atcagtttat gatagggaaa
2881 cgaggggaaa tgtggacaca caaaagaact tatcggggct tctcatcagt cttgccaatc
2941 agactggcat gtgcctaaac gagctctgat gttattttta agctcccttt cgcaggaagg
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14853 cagaaacaca cagtcacatt cgaattc

(2) INFORMATION FOR SEQ ID NO:2860:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 718 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2860:

1 aggggagcgt ggatcagttc tcacaggagc cacagctcag agactgggaa acatgggttcc
61 aaaactgttc acttcccaaa tttgtctgct tcttctgttg gggcttatgg gtgtggaggg
121 ctactccat gccagacccc cacagtttac gagggctcag tgggttgcca tccagcacat
181 cagtctgaac cccctcgtat gcaccattgc aatgcgggca attaaacatt atcgatggcg
241 ttgcaaaaaa caaaataact ttcttcgtac aactttgtct aatgtagtta atgtttgttg
301 taaccaaagt atacgtgccc ctcataacag aactctcaac aattgtcatc ggagtagatt
361 cggggtgcct ttactccact gtgacctcat aaatccagggt gcacagaata tttcaaactg
421 caggtatgca gacagaccag gaaggagggt ctatgtagtt gcatgtgaca acagagatcc
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(2) INFORMATION FOR SEQ ID NO:2861:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 715 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2861:

1 gaacaaccag ctggatcagt tctcacagga gccacagctc agagactggg aaacatgggt
61 ccaaaactgt tcaacttccca aatttgtctg cttcttctgt tggggcttat ggggtgtggg
121 ggctcactcc atgccagacc cccacagttt acgagggctc agtgggtttg catccagcac
181 atcagttcga accccctcgt atgcaccatt gcaatgcggg caattaacaa ttatcgatgg
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361 ttccgggtgc ctttactcca ctgtgacctc ataaatccag gtgcacagaa tatttcaaac
421 tgacggatg cagacagacc aggaaggagg ttctatgtag ttgcattgta caacagagat
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541 cctgtatcag cagtcctcat catcactcat ctgccaagct cctcaatcat agccaagatc
601 ccatccctcc atgtactctg ggtatcagca actgtcctca tcagtctcca tacccttca
661 gctttcctga gctgaagtcc cttgtgaacc ctgcaataaa ctgctttgca aattc

(2) INFORMATION FOR SEQ ID NO:2862:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1452 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2862:

1 ctgccagcag cgtatagttt tcacccagag tccagatccc accggcaaaa ctctgtctaa
61 cacaggatga cttggaatta gagtccgtat agcagaaaga gcagcagggc tgtccttggg
121 tatccgtttgc tcagccaagt catcaaataa aaaggatgat tgcacaagtg gaccatgtgt
181 caatctgttg gtttctgcat ggccagaccc accaagggaa gctttattta aacagttcca
241 agtaggggag accagctgcc cctgaacccc agaacaacca gctggatcag ttctcacagg
301 agccacagct cacagactgg gtaagtcaac aatccccaga gctgggacag gaggggcagc
361 gacagggcag cacctgaggg agaggtgagc tgaagttagt gcttaggaga tgtggcacac
421 tttggggaca ggaagaaaag gaaatgcgac cccagagtgg cagcagaggg gcctgtgggt
481 tgagacacta tagagtgtgt cataaccgag accggatagg ggagttagta cttctcttct
541 tttcttacag gaaacatggg tccaaaactg ttcacttccc aaatttgtct gcttcttctg
601 ttggggctta tgggtgtgga gggctcactc catgccagac cccacagtt tacgagggct
661 cagtggtttg ccatccagca catcagtctg aacccccctc gatgcacat tgcaatgcgg
721 gcaattaaaca attatcgatg gcgttgcaaa aaccaaataa ctttcttctg tacaactttt
781 gctaagttag ttaatgtttg tggtaaccaa agtatacgt gccctcataa cagaactctc
841 aacaattgtc atcggagtag attccgggtg cctttactcc actgtgacct cataaatcca
901 ggtgcacaga atatttcaaa ctgcaggtat gcagacagac caggaaggag gttctatgta
961 gttgcatgtg acaacagaga tccacgggat tctccacggg atcctgtggg tccagttcac
1021 ctggatacca ccatctaagc tctgtatca gcagtcctca tcatcactca tctgccaagc
1081 tcttcaatca tagccaagat cccatccctc catgtactct gggatcagc aactgtcctc
1141 atcagtctcc atacccttc agcttctctg agctgaagtc ccttgtgaac cctgcaataa
1201 actgctttgc aaattcatct ggaagtgtct gtgtgtcttc ctgcggcgt ctgctgtcat
1261 ttagtgaaca tctgtcttag agatttgggt ttatcatgaa tctctcccc tcaatatctg
1321 accaaattcc ttgattcccc catcatcctt catgtgatac ctgattccag gcctgcctta
1381 aaaaaaatc caattgagtc aacttagcat tggctcctc agccttaata tctcctctaa
1441 gcaattttcc at

(2) INFORMATION FOR SEQ ID NO:2863:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2885 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2863:

1 aggggcagct ggatcagttc tcacaggagc cacagctcag agactgggaa acatggttcc
61 aaaactgttc acttcccaaa tttgtctgct tcttctgttg gggcttatgg gtgtggaggg
121 ctcaactccat gccagacccc cacagtttac gagggctcag tggtttgcca tccagcacat
181 cagttctgaac cccctcgtat gcaccattgc aatgcgggca attaacatt atcgatggcg
241 ttgcaaaaac caaataactt ttcttcgtac aacttttgct aatgtagtta atgtttgtg
301 taaccaaagt atacgctgcc ctcataacag aactctcaac aattgtcatc ggagtagatt
361 ccgggtgcct ttactccact gtgacctcat aaatccaggt gcacagaata tttcaaaactg
421 caggtatgca gacagaccag gaaggagggt ctatgtagtt gcatgtgaca acagagatcc
481 acgggattct ccacggatc ctgtggttcc agttcacctg gataccacca tctaagctcc
541 tgtatcagca gtccctcatca tcaactcatc gccagctcc tcaatcatag ccaagatccc
601 atccctccat gtactctggg tatcagcaac tgtcctcatc agtctccata ccccttcagg
661 tttcttgagc tgaagtccct tgtgaaccct gcaataaact gctttgcaaa ttcaaaaa
719 gaacaaccag ctggatcagt tctcacagga gccacagctc agagactggg aaacatgggt
779 ccaaaactgt tcaactccca aatttgtctg cttcttctgt tggggcttat ggggtgtggg
839 ggctcactcc atgcagacc cccacagttt acgagggtc agtgggttgc catccagac
899 atcagtctga acccccctcg atgcaccatt gcaatgcggg caattaacaa ttatcgatgg
959 cgttgcaaaa accaaaatac ttttcttctg acaacttttg ctaatgtagt taatgtttgt
1019 ggtaacaaa gtatagctg ccctcataac agaactctca acaattgtca tcggagtaga
1079 ttccgggtgc ctttactcca ctgtgacctc ataaatccag gtgcacagaa tatttcaaac
1139 tgcaggtagt cagacagacc aggaaggagg ttctatgtag ttgcatgtga caacagagat
1199 ccacgggatt ctccacggta tctgtgggt ccagttcacc tggataccac catctaagct
1259 cctgtatcag cagtcctcat catcactcat ctgccaagct cctcaatcat agccaagatc
1319 ccatccctcc atgtactctg ggtatcagca actgtcctca tcagtctcca tacccttca

1379 gctttcctga gctgaagtc cttgtgaacc ctgcaataaa ctgctttgca aattc
1434 ctgccagcag cgtatagttt tcacccagag tccagatccc accggcaaaa ctctgtctaa
1494 cacaggatga cttggaatta gagtccgtat agcagaaaga gcagcagggc tgtccttggg
1554 tatccgttgc tcagccaagt catcaaataa aaaggatgat tgcacaagtg gacctgtgt
1614 caatctgtgg gtttctgcat ggccagaccc accaaggga gctttattta aacagttcca
1674 agtaggggag accagctgcc cctgaacccc agaacaacca gctggatcag ttctcacagg
1734 agccacagct cagagactgg gtaagtcaac aatccccaga gctgggacag gaggggcagc
1794 gacagggcag cacctgaggg agaggtgagc tgaagttagt gcttaggaga tgtggcacac
1854 tttggggaca ggaagaaaag gaaatgagc cccagagtgg cagcagaggg gcctgtgggt
1914 tgagacacta tagagtgtgt cataaccgag accggatagg ggagttagta cttctcttct
1974 tttcttacag gaaacatggt tccaaaactg ttcacttccc aaatttgtct gcttcttctg
2034 ttggggctta tgggtgtgga gggctcactc catgccagac cccacagtt tacgagggct
2094 cagtgggttg ccatccagca catcagttct aacccccctc gatgcaccat tgcaatgcgg
2154 gcaattaaca attatcgatg gcgttgcaaa aaccaaaata cttttcttct tacaactttt
2214 gctaattgtg ttaattgttg ttgtaaccaa agtatacgtt gccctcataa cagaactctc
2274 acaattgttc atcggagtag attccgggtg cctttactcc actgtgacct cataaatcca
2334 ggtgcacaga atatttcaaa ctgcagggtat gcagacagac caggaaggag gttctatgta
2394 gttgcatgtg acaacagaga tccacgggat tctccacggt atcctgtggt tccagttcac
2454 ctggatacca ccatctaagc tcctgtatca gcagtcctca tcatcactca tctgccaaagc
2514 tcctcaatca tagccaagat cccatccctc catgtactct gggtatcagc aactgtcctc
2574 atcagttctc atacccttc agctttcctg agctgaagtc ccttgtgaac cctgcaataa
2634 actgctttgc aaattcatct ggaagtgtct gtgtgtcttc ctggccgct ctgctgtcat
2694 ttagtacaa tctgtcttag agatttgggt ttatcatgaa tctctcccc tcaatatctg
2754 accaaattcc ttgattcccc catcatcctt catgtgatac ctgattccag gcctgcctta
2814 aaaaaaaatc caattgagtc aacttagcat tggctcctcc agccttaata tctcctctaa
2874 gcaattttcc at

(2) INFORMATION FOR SEQ ID NO:2864:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 694 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2864:

1 cacaggagct acagcgcgga gactggaaac atggttccaa aactgttcac ttcccaaatt
61 tgtctgtctc tttgtttggg gcttctggct gtggagggct cactccatgt caaacctcca
121 cagtttacct gggctcaatg gtttgaaacc cagcacatca atatgacctc ccagcaatgc
181 accaatgcaa tgcagggtcat taacaattat caacggcgat gcaaaaacca aaatactttc
241 cttcttacaa cttttgctaa cgtagttaat gtttgtggtt acccaaatat gacctgtcct
301 agtaacaaaa ctgcacaaaa ttgtcaccac agtggaagcc aggtgccttt aatccactgt
361 aaactcacaa ctccaagtcc acagaatatt tcaaaactgca ggtatgcgca gacaccagca
421 aacatgttct atatagttgc atgtgacaac agagatcaac gacgagaccc tccacagtat
481 ccggtgggtc cagttcacct ggatagaatc atctaagctc ctgtatcagc actcctcctc
541 atcactcctc tgccaagctc ctcaatcata gccaaagatcc catctctcca tatactttgg
601 gtatcagcat ctgtctcat cagtctccat accccttcag ctttctctgag ctgaagtgc
661 ttgtgaacct tgcaataaac tgctttgcaa attc

(2) INFORMATION FOR SEQ ID NO:2865:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1489 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2865:

1 ctgcaggcag catatagttt tcatccagag tttggatcta accagcaaaa ctctgtctta
61 cacaggatga cttggaatta gagtcccttat agcagaaaga gcagcagggc tgtccttggg
121 tatccgttgc tcagccaagt catcaaataa aaaggatgat tgcacaagtg gactatgtac
181 caatctgtgg gtttctgcat ggccaagagc cagaccctcc ctctgggctc tgcctggcca
241 acccaccag ggatgcttta tttaaacagt tccaagtagg ggagaccagc tgcccctgaa
301 cccagacaac accagctgga tcagtctctc caggagctac agcgcgga gctggtaagt
361 caacgatccc cagagctggg acagaagggg cagcaatggg gcagcaactg agggagaaga
421 gagctgacgt tagtgcttag gagacgttgc acactttgca gacaggaagt aaaggaaatg
481 ggaccccaga gtggccgcag aggggcctgt ggggtaagac actacagtgt gtgtcataac
541 caagaccgga tcagggagta gttacttctc ttcttttctt acaggaaaca tggttccaaa
601 actgttctact tccaaaatt gtctgttctt tctgttggg cttctggctg tggagggtc
661 actccatgtc aaacctccac agtttacctg ggctcaatgg tttgaaacct agcacatcaa
721 tatgacctcc cagcaatgca ccaatgcaat gcaggtcatt aacaattatc aacggcgatg
781 caaaaaccaa aatactttcc ttcttacaac ttttgctaac gtagttaatg tttgtggtaa

841 cccaaatattg acctgtccta gtaacaaaac tcgcaaaaat tgtcaccaca gtggaagcca
 901 ggtgaccttta atccactgta acctcacaac tccaagtcca cagaatattt caaactgcag
 961 gtatgcgcag acaccagcaa acatgttcta tatagttgca tgtgacaaca gagatcaacg
 1021 acgagaccct ccacagtatc cgggtggtcc agttcacctg gatagaatca tctaagctcc
 1081 tgtatcagca ctctcatca tcaactcatc gccaaagctcc tcaatcatag ccaagatccc
 1141 atctctccat atactttggg tatcagcatc tgtcctcatc agtctccata ccccttcagc
 1201 ttctctgagc tgaagtgcct tgtgaacctt gcaataaact gctttgcaaa ttcattctgaa
 1261 agtgtctgtg tgtcttcatt agccgctctg ctgtcattta gtgacaatct actctagaga
 1321 tttttcttcc tctaacctga gacttccggg aaacagagag atttgaagat aagagacgct
 1381 ttctgtcatg aaacagcaca gtcttatccc tctccctgct ttaggctgag aagctgaggt
 1441 ctcaaccgat atctagcaac tgtcgaagac tcttgctttg atcaagctt

(2) INFORMATION FOR SEQ ID NO:2866:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 735 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2866:

1 gctgccccctg aaccccagaa caaccagctg gatcagttct cacaggagct acaggccgga
 61 gactgggaaa catggttcca aaactgttca cttcccaaat ttgtctgctt cttctgttgg
 121 ggcttctggc tgtggagggc tcaactccatg tcaaacctcc acagtttacc tgggctcaat
 181 ggtttgaaac ccagcacatc aatatgacct cccagcaatg caccaatgca atgcaggta
 241 ttaacaatta tcaacggcga tgcaaaaacc aaaatacttt cttcttaca acttttgcta
 301 acgtagttaa tgtttgtggt aacccaataa tgacctgtcc tagtaacaaa actcgcacaaa
 361 attgtcacca cagtgggaagc caggtgcctt taatccactg taacctcaca actccaagtc
 421 cacagaatat ttcaaaactgc aggtatgcgc agacaccagc aaacatgttc tatatagttg
 481 catgtgacaa cagagatcaa cgacgagacc ctccacagta tccggtgggt ccagttcacc
 541 tggatagaat catctaagct cctgtatcag cactcctcat catcactcat ctgccaagct
 601 cctcaatcat agccaagatc ccatctctcc atatactttg ggtatcagca tctgtcctca
 661 tcagtctcca tacccttca gctttcctga gctgaagtgc cttgtgaacc ctgcaataaa
 721 ctgctttgca aattc

(2) INFORMATION FOR SEQ ID NO:2867:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2918 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2867:

1 cacaggagct acagcgcgga gactggaac atggttccaa aactgttcac ttcccaaat
 61 tgtctgcttc ttctgttggg gcttctggct gtggagggt cactccatgt caaacctcca
 121 cagtttacct gggctcaatg gtttgaaacc cagcacatca atatgacctc ccagcaatgc
 181 accaatgcaa tgcaggctat taacaattat caacggcgat gcaaaaacca aaatactttc
 241 cttcttaca cttttgctaa cgtagttaac gtttggta acccaaatat gacctgtcct
 301 agtaacaaaa ctgcacaaaa ttgtcaccac agtggagcc aggtgccttt aatccactgt
 361 aacctcaca ctccaagtcc acagaatatt tcaaaactgca ggtatgcgca gacaccagca
 421 aacatgttct atatagttgc atgtgacaac agagatcaac gacgagacct tccacagtat
 481 ccggtgttcc cagttcacct ggatagaatc atctaagctc ctgtatcagc actcctcatc
 541 atcactcatc tgccaagctc ctcaatcata gccaaagatcc catctctcca tatactttgg
 601 gtatcagcat ctgtcctcat cagtctccat accccttcag ctttctctgag ctgaagtgc
 661 ttgtgaaccc tgcaataaac tgctttgcaa attc
 695 ctgcaggcag catatagttt tcatccagag tttggatcta accagcaaaa ctctgtctta
 755 cacaggatga cttggaatta gactccttat agcagaaaga gcagcagggc tgtccttggg
 815 tatccgttgc tcagccaagt catcaataaa aaaggatgat tgcacaagtg gactatgtac
 875 caatctgtgg gtttctgcat ggccaagagc cagaccctcc ctctgggctc tgctggccca
 935 acccaccagc ggaatgctta tttaaacagt tccaagttag ggagaccagc tgccctgaa
 995 cccagaaca accagctgga tcagttctca caggagctac agcgcgga ctgggtaagt
 1055 caacgatccc cagagctggg acagaagggg cagcaatggg gcagcaactg agggagaaga
 1115 gagctgacgt tagtgcttag gagacgttgc acactttgca gacaggaagt aaaggaaatg
 1175 ggacccaga gtggccgcag aggggcctgt ggggtaagac actacagtgt gtgtcataac
 1235 caagaccgga tcaggagta gttactttct ttcttttctt acaggaaaca tggttccaaa
 1295 actgttact tcccaaatat gtctgttct tctgttggg cttctggctg tggagggtc
 1355 actccatgtc aaacctccac agtttacctg ggctcaatgg tttgaaaccc agcacatcaa
 1415 tatgacctcc cagcaatgca ccaatgcaat gcaggtcatt aacaattatc aacggcgatg

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1475 caaaaaccaa aatacttttc ttcttacaac ttttgctaac gtagttaatg tttgtggtaa
1535 cccaaatatg acctgtccta gtaacaaaac tcgcaaaaat tgtcaccaca gtggaagcca
1595 ggtgccttta atccactgta acctcacaac tccaagtcca cagaatattt caaactgcag
1655 gtagcgcgag acaccagcaa acatgttcta tatagtgtca tgtgacaaca gagatcaacg
1715 acgagaccct ccacagtatc cgggtggttc agttcacctg gatagaatca tctaagctcc
1775 tgtatcagca ctctcatca tcaactcatc gccaaagctcc tcaatcatag ccaagatccc
1835 atctctccat atactttggg tatcagcatc tgtcctcatc agtctccata ccccttcagc
1895 tttcctgagc tgaagtgcct tgtgaacctt gcaataaact gctttgcaaa ttcattctgaa
1955 agtgtctgtg tgtcttcatt agccgctctg ctgtcattta gtgacaatct actctagaga
2015 tttttcttcc tctaacctga gacttccggg aaacagagag atttgaagat aagagacgct
2075 tttgttcatt aaacagcaca gtcttatccc tctccctgct ttaggctgag aagctgaggt
2135 ctcaaccgat atctagcaac tgtcgaagac tcttgctttg atcaagctt
2184 gctgcccctg aaccccagaa caaccagctg gatcagttct cacaggagct acaggccgga
2244 gactgggaaa catggttcca aaactgttca cttcccaaat ttgtctgctt cttctgttgg
2304 ggcttctggc tgtggagggc tcaactccatg tcaaacctcc acagtttacc tgggctcaat
2364 ggtttgaaac ccagcacatc aatatgacct cccagcaatg caccaatgca atgcagggtca
2424 ttaacaatta tcaacggcga tgcaaaaacc aaaatacttt cttcttaca acttttgcta
2484 acgtagttaa tgtttgtggt aacccaataa tgacctgtcc tagtaacaaa actcgcaaaa
2544 attgtcacca cagtgggaagc caggtgcctt taatccactg taacctcaca actccaagtc
2604 cacagaatat ttcaaactgc aggtatgcgc agacaccagc aaacatgttc tatatagttg
2664 catgtgacaa cagagatcaa cgacgagacc ctccacagta tccgggtggt ccagttcacc
2724 tggatagaat catctaagct cctgtatcag cactctcatc catcactcat ctgccaagct
2784 cctcaatcat agccaagatc ccatctctcc atatactttg ggtatcagca tctgtcctca
2844 tcagtctcca tacccttcca gctttcctga gctgaagtgc cttgtgaacc ctgcaataaa
2904 ctgctttgca aattc

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(2) INFORMATION FOR SEQ ID NO:2868:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 391 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2868:

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1 ccatggagga aggtcaatat tcaggtagga ggactctctg gttctaactg tggcagaagc
61 aatgaccctt agctactcct ttcaccaga agagaagcgg ggcttcccag tccctctctg
121 ggaagagagg tgaatttcta agaaagggac tgggtgtgag aaggaggtga ggccgactg
181 actttcctgg cacagagcca ggaaggagtg gaaaattgag ggccctcctt tttctgatt
241 caacaccctc ctgacaaaaa aagaaaaaga aaaaaaaaaa cggcttcagc tagggagcgg
301 ggacgcaata gagtcaaggg ccaaatagaa caggaacttg gaacaagcag aatttagcat
361 aatgaatcct ccaagccagg gtgagtgcag a

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(2) INFORMATION FOR SEQ ID NO:2869:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3108 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2869:

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1 aagcttgga ataagtccag ctgggccatg ttgtgaggac atggggatga agtcttagtt
61 ccaggatggg gctgggatgg agtttgggtg ttcttttctg tttttcttcc tttttcttct
121 tctttttttt ttttgggaga cagagtttag cttttgttgc ccaggctgga atgcaatggc
181 ggatctcgcc tcaccgcaac ctctgcctcc cggattcaag cgattctcct gcctcagcct
241 cccgagtatg taggattaca ggtgcccacc accatgccca gctaattttt tttttttttt
301 tttttttttt tattttcagt agatacaggg ttccaccatg ttggccttga actcctgacc
361 tcagatgata cacctgcctc ggccctccaa agtgctggga ttacaggcgc tgacgatgtg
421 cccggtctct ctctctctct ttctctctct ctttctttca tctcactgtg ttgcccagg
481 ctgatcttga actcctgggc tcaagtgate cactcacctc tgccctccca gtagctggga
541 tcacaggcat gcaccaccat gccctgctag tttttatagt ttttgtagag acaacggctt
601 gctatgttgt ccaggctggt cttgaactcc caggcttaag tgatcctccc acctcagcct
661 cccaaagtgc tgggattaca ggcgtgaacg tccgtgccag ccaaactgtc catatttgac
721 ctgaatatta tctcacgat ctttctttcc ccccgcttcc ctcttccctt cctactcttc
781 ttttctcttc tcttctcttc tgtctttttt ttcccttccc tctgcctctc tctctcttcc
841 ccttttttct tgctgggact caaacctggg acatttgacc tgggagccta tttgtcaaat
901 catcaagaga cataatctca tgggtgggtg tctgtctgga agtgccgggt ggcaggatcc
961 caactccagg ccgtccttct aacccaagag gccctgcctc tgccatagag cttccgtgga

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1021 tccccagggc cctctgtgat cggccatagt ggtatgattc agtgtgcagt aacagtgggt
1081 cacatcttga cgctaccact cacctccttc agccctgtgg gaacttgctg cttaacatct
1141 ctagtcttca cccaattctc ttacctgaga aatggagata ataataacac ggacttcacc
1201 cgggtgtggg gagcaccagg agaggccatg cgtgtaatgt tatccgggtg gcaagcccat
1261 atttaggtct atgaaaatag aagctgtcag tggctctact ttcagaagaa agtgtctctc
1321 ttctctgctt aacctctgtc tctgacggtc cctgccaatc gctctggctg accccaacac
1381 actaggagga cagacacagg ctccaaactc cactaagtga gtacgtatct ggtgtgttgg
1441 ggggttgccc atgggcagtg gagatcaaag cgcccttggg agaaaacgacc ttgggctgag
1501 cctcaaggga tgaccagcag gaggtcacaa ccagagaagg gaggtgttgg gtggtgaggg
1561 ggcgggggtg ggggcccag tgtggacaga atctcgaggc attcgagtcc ctgatttggg
1621 gaagtgaag caggccatct ggtctgagat gagcttgggt agtgcgctgg gccgatcata
1681 gagggccctg gggagccatg gaagactcta ggcagaggca ggacctcttg ggttagaagg
1741 acggcctgga gttgggatcc tgccaccag cacttaccag tagacacccc accatgagat
1801 tatgtctcca gatgattgag caaatgggct cccagctcaa gggccccggg tttgagtcca
1861 gtcccaccac tgcgtgatgg ggacaaatga cttaccctct tggaaacctc gttccactga
1921 gagaggcccc acagaatgag gacagtcccc cagcatcctg ccagtagggt tactgagcac
1981 ctactgtgtg ctggtgcttt gaatactccc aatttacaga tgagcaaaact gagctgctca
2041 tccagggaga agccaggact cggactcagg tctgtccagc tgccctcctg gacagtcca
2101 gtcccaggat ggtctctggg ttctctctac aatgtcaaaa gggccagctt gagctgccgc
2161 taatcagagc ctggccgcgc cacaccccac ctccctgagg ctccgagaga agggacttac
2221 ctatagtcaa gcagcgaaaag aaggtagccc gtgacctcca ggcctgaagg accccaagtc
2281 ccatgtcctc cagcacatag tagatgcttt aaagtcagag gacttggctg ggcgaggga
2341 cgctgtaat cctagcactt tgggaggtgt agggaggcag atcacctgtg gtcaggagtt
2401 cgagaccagc ctgatcaata tgggtgaaacc ctgtctctac taaaatacaa aaattagcca
2461 ggtgtgtgtg tgggtgcctg tagtcccagc tacttgggag gctaagacag gagaatcgct
2521 tgaacccggg aggtggaggt tgcagtgagc caagatggtg ccattgcact ctgacctggg
2581 tgacagagcg agactccatc tcaaaaaata aaaaaatagg ccatgcacag gctcacgctt
2641 gtaatccccg cactttggga ggcgagggcg ggcggatcat gaggtcagga gtttgagact
2701 agcctggcca acatagttaa aaccctcttc tactaaaaat acaaaaatta tctggtcatg
2761 gtggcacgtg actatagtcc cagctactcg ggaggctgag gcgggagaat cgctgaacc
2821 caggaggtgg aggtggcagt gagccgagat cgtgccctg cactccagcc tgggcaacag
2881 agcgagactc catttcaata aataaataaa taaataaagt cagagcactt tacagatgcc
2941 ctggggacat tggcagagga gaaggctgag gcctgggtta tgggctctta gcatttctca
3001 gtgggacgtg gcacagagta gatgtttcat aaatgtttag aatctgaaga cccactgtgc
3061 gcagcccgcc accaaaaacc tcaggtatgc tgtgatctca ttggatcc

```

(2) INFORMATION FOR SEQ ID NO:2870:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1503 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2870:

```

1 ctctctgtta aacctctgtc tctgacggtc cctgccaatc gctctggctg accccaacac
61 actaggagga cagacacagg ctccaaactc cactaagtga ccagagctgt gatttgcccc
121 gctgagtgga ctgctgtgtc agggagttag tgctccatca tcgggagaat ccaagcagga
181 ccgccatgga ggaaggtcaa tattcagaga tcaggagct tcccaggagg cgggtgttga
241 ggcgtgggac tcagatcgtg ctgctggggc tggtgaccgc cgctctgttg gctgggctgc
301 tgactctgct tctcctgttg cactgggaca ccacacagag tctaaaacag ctggaagaga
361 gggctgcccc gaacgtctct caagtttcca agaacttggg aagccaccac ggtgaccaga
421 tggcgagaaa atcccagtc acgcagattt cacaggaact ggaggaaact cgagctgaac
481 agcagagatt gaaatctcag gacttggagc tgtcctggaa cctgaacggg cttcaagcag
541 atctgagcag cttcaagtcc caggaattga acgagaggaa cgaagcttca gatttgctgg
601 aaagactccg ggaggaggtg acaaagctaa ggtggagtt gcaggtgtcc agcggtttg
661 tgtgcaaacac gtgccctgaa aagtggatca atttccaacg gaagtgttac tacttcggca
721 agggcaccac gcagtgggtc cagccccggg gagcaggact tctgaccaa gcatgccagc cacaccggct
781 tcagcatcca cagccccggg tggacctga agggagagtt tatctgggtg gatgggagcc
841 cctggatttg ccttcggaac gtccagggg agccccaccg ccggagccag ggcgaggact
901 atgtggacta cagcaactgg gctccaggg agccccaccg ctgcgaccgt aagctgggct
961 gcgtgatgat gcggggctcc ggtcgttggg acgacgcctt ctgcgaccgt tccgcggagt
1021 cctgggtgtg cgaccggctg gccacatgca cgccgccagc cagcgaaggt tccgcggagt tctgccctc
1081 ccatgggacc tgattcaaga ccagaccctg acggccgcct gcccccacc tctgccctc
1141 tccactcttg agcatggata cagccaggcc cagagcaaga ccctgaagac cccaaccac
1201 ggcctaaaag cctctttgtg gctgaaaggt ccctgtgaca ttttctgcca ccaaacgga
1261 ggcagctgac acatctcccg ctctctatg gccctgcct tcccaggagt acaccacaac
1321 agcacctctc ccagatggga gtccccccaa cagcaccctc tccagatgag agtacacccc
1381 aacagcacc cctccagatg cagccccatc tctcagcac cccaggacct gagtatcccc
1441 agctcagggt gtgagtcctc ctgtccagcc tgcataata aaatggggca gtgatggcct

```

1501 ccc

(2) INFORMATION FOR SEQ ID NO:2871:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1530 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2871:

```
1 agtggctcta ctttcagaag aaagtgtctc tcttcctgct taaacctctg tctctgacgg
61 tccctgccaa tcgctctggt cgaccccaac acactaggag gacagacaca ggctccaaac
121 tccactaacc agagctgtga ttgtgccgcg tgagtggact gcgttgtagg ggagttagtg
181 ctccatcatc gggagaatcc aagcaggacc gccatggagg aaggtcaata ttcagagatc
241 gaggagcttc ccaggaggcg gtgttgacgg cgtgggactc agatcgtgct gctggggctg
301 gtgaccgcgc ctctgtgggc tgggctgctg actctgcttc tctgtgggca ctgggacacc
361 acacagagtc taaaacagct ggaagagagg gctgcccgga acgtctctca agtttccaag
421 aacttggaag gccaccacgg tgaccagatg gcgcagaaat cccagtccac gcagatttca
481 caggaacttg aggaacttcg agctgaacag cagagattga aatctcagga cttggagctg
541 tcctgggaacc tgaacgggct tcaagcagat ctgagcagct tcaagtccca ggaattgaac
601 gagaggaacg aagcttcaga tttgctggaa agactccggg aggaggtgac aaagctaagg
661 atggagtttg aggtgtccag cggctttgtg tgcaacacgt gccctgaaaa gtggatcaat
721 ttccaacgga agtgctacta cttcggcaag ggcaccaagc agtgggtcca cgcccggtat
781 gcctgtgacg acatggaagg gcagctggtc agcatccaca gcccgaggga gcaggacttc
841 ctgaccaagc atgccagcca caccggctcc tggattggcc ttcggaactt ggacctgaag
901 gaggagttta tctgggtgga tgggagccat gtggactaca gcaactgggc tccaggggag
961 cccaccagcc ggagccaggg cgaggactgc gtgatgatgc ggggctccgg tcgctggaac
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1081 ccgcccagcca gcgaaggttc cgcgagttcc atgggacctg attcaagacc agacctgac
1141 ggccgcctgc ccacccctc tgcccctctc cactcttgag catggatata gccaggccca
1201 gagcaagacc ctgaagaccc ccaaccacgg cctaaaagcc tctttgtggc tgaagggtcc
1261 ctgtgacatt ttctgccacc caaacggagg cagctgacac atctcccgtc cctctatggc
1321 ccctgccttc ccaggagtac accccaacag caccctctcc agatgggagt gccccaaca
1381 gcaccctctc cagatgagag tacaccccaa cagcaccctc tccagatgca gccccatctc
1441 ctcagcacc caggacctga gtatccccag ctcagggtgt gagtccctct gtccagcctg
1501 catcaataaa atggggcagt gatggcctcc
```

(2) INFORMATION FOR SEQ ID NO:2872:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6532 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2872:

```
1 ccatggagga aggtcaatat tcaggtagga ggactctctg gttctaactg tggcagaagc
61 aatgaccctt agctactcct ttcacccaga agagaagcgg ggcttcccag tccctctctg
121 ggaaagaggg tgaatttcta agaaaggagc tgggtgtgag aaggaggtga ggccgcactg
181 acttttcctg cacagagcca ggaaggagtg gaaaattgag ggccctcctt ttttctgatt
241 caacaccctc ctgacaaaaa aagaaaaaga aaaaaaaaaa cggcttcagc tagggagcgg
301 ggacgcaata gagtacagag ccaaatagaa caggaaactt gaacaagcag aatttagcat
361 aatgaatcct ccaagccagg gtgagtgcag a
392 aagcttggga ataagtccag ctgggccatg ttgtgaggac atggggatga agtcttagtt
452 ccaggatggg gctgggatgg agtttgggtg ttcttttctg tttttctttc ttttttcttt
512 tctttttttt ttttgtgaga cagagtttag cttttgttgc ccaggctgga atgcaatggc
572 ggatctcgcc tcaccgcaac ctctgcctcc cggattcaag cgattctcct gcctcagcct
632 cccagtagtc taggattaca ggtgcccacc accatgcccc gctaattttt tttttttttt
301 tttttttttg tattttcagt agatacaggg ttccaccatg ttggccttga actcctgacc
361 tcagatgata cacctgcctc ggccctccaa agtgcctgga ttacaggcgc tgacgatgtg
421 cccggtctct ctctctctct ttctctctct ctttctttca tctcactgtg ttgcccaggg
481 ctgatcttga actcctgggc tcaagtgatc cactcacctc tgcctcccca gtagctggga
541 tcacagggcat gcaccacat gccctgctag tttttatagt tttttagag acaacggcct
601 gctatgttgt ccaggctggg ctggaactcc caggcttaag tgatcctccc acctcagcct
661 cccaaagtgc tgggattaca ggctgaaacg tccgtgccag ccaaactgtc catatttgac
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841 ccttttttct tgctgggact caaacctggg acatttgacc tgggagccta tttgctcaat
901 catcaagaga cataatctca tgggtgggtg tctgctggta agtgccgggt ggcaggatcc
961 caactccagg cgtctcttct aacccaagag gccctgcctc tgcttagagc cttcctgtgg
```

1021 tccccagggc cctctgtgat cggccatagt ggtatgattc agtgtgcagt aacagtgggt
1081 cacatcttga cgtaccact cactccttc agccctgtgg gaacttgctg cttaaacatct
1141 ctagtcttca cccaattctc ttacctgaga aatggagata ataataacac ggacttcacc
1201 cgggtgtggg gagcaccagg agaggccatg cgtgtaatgt tatccgggtg gcaagcccat
1261 atttaggtct atgaaaaatag aagctgtcag tggctctact ttcagaagaa agtgtctctc
1321 ttctgtctta aacctctgtc tctgacggtc cctgccaatc gctctgggtg accccaacac
1381 actaggagga cagacacagg ctccaaactc cactaagtga gtacgtatct ggtgtgttgg
1441 gggttggtccc atgggcagtg gagatcaaag cgcccttgga agaaacgacc ttgggctgag
1501 cctcaaggga tgaccagcag gaggtcacaa ccagagaagg gaggtgggtg gtggtgaggg
1561 ggcgggggtg ggggcgcag tgtggacaga atctcgaggc attcgagtcc ctgatttggg
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1801 tatgtctcca gatgattgag caaatgggct ccagctcaa ggggtccggg tttgagtcca
1861 gtcccaccac tgcgtgatgg ggacaaatga cttaccctct tggaacctca gttccactga
1921 gagaggcccc acagaatgag gacagtcccc cagcatctct ccagtaggtt tactgagcac
1981 ctactgtgtg ctggtgcttt gaatactccc aatttacaga tgagcaaaact gagctgtcta
2041 tccagggaga agccaggact cggactcagg tctgtccagc tgccctcctg gacagtcca
2101 gtcccaggat ggtctctgtg ttctctctac aatgtcaaaa gggccagctt gagctgccgc
2161 taatcagagc ctggcgcgcg cacacccca ctccttgagg ctccgagaga agggacttac
2221 ctatagtcga ggcgcgaaag aaggtagccc gtgacctcca ggcctgaagg accccaagtc
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2341 cgctgtaat cctagcactt tgggaggctg aggagggcag atcactctgt gtcaggaggt
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2581 tgacagagcg agactccatc tcaaaaaata aaaaaatagg ccattgcacag gctcacgcct
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2761 gtggcacgtg actatagtcc cagctactcg gggagctgag gcgggagaat cgctgaacc
2821 caggaggtgg aggtggcagt gagccgagat cgtgccctg cactccagcc tgggcaacag
2881 agcgagactc catttcaata aataataaaa taaataaagt cagagcactt tacagatgcc
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3001 gtgggacgtg gcacagagta gatgtttcat aaatgtttag aatctgaaga cccactgtgc
3061 gcagcccgcc ccaaaaaacc tcagggtatgc tgtgatctca ttggatcc
1 ctctgtctta aacctctgtc tctgacggtc cctgccaatc gctctgggtg accccaacac
61 actaggagga cagacacagg ctccaaactc cactaagtga ccagagctgt gatttggccc
121 gctgagtgga ctgcgttctc agggagttag tgctccatca tcgggagaat ccaagcagga
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241 ggcgtgggac tcagatcgtg ctgctggggc tggtgaccgc cgctctgtgg gctgggctgc
301 tgactctgct tctcctgtgg cactgggaca ccacacagag tctaaaacag ctggaagaga
361 gggctgcccg gaacgtctct caagtttcca agaacttga aagccaccac ggtgaccaga
421 tggcgcagaa atcccagtc acgcagattt cacaggaact ggaggaactt cgagctgaac
481 agcagagatt gaaatctcag gacttggagc tgccttgga cctgaacggg cttcaagcag
541 atctgagcag cttcaagtcc caggaattga acgagaggaa cgaagcttca gatttggctg
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661 tgtgcaacac gtgccctgaa aagtggatca atttccaacg gaagtgtctac tacttcggca
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1201 ggcctaaaag cctctttgtg gctgaaaggt ccctgtgaca tttctgcca ccaaacgga
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1381 aacagcacc cctccagatg cagcccatc tcctcagcac cccaggacct gattatcccc
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1501 ccc
1 agtggtctta ctttcagaag aaagtgtctc tcttctgct taaacctctg tctctgacgg
61 tccctgcaa tcgctctggt cgaccccaac acactaggag gacagacaca ggtccaaac
5123 tccactaac agagctgtga ttgtgccgc tgaaggact gcgttctcag ggaagttagt
5183 ctccatcatc gggagaatcc aagcaggacc gccatggagg aaggtcaata ttcagagatc
5243 gaggagcttc ccaggaggcg gtgttgacag cgtgggactc agatcgtgct gctggggctg
5303 gtgaccgccc ctctgtgggc tgggtgctg actctgctc tctgtggca ctgggacacc
5363 acacagagtc taaaacagct ggaagagagg gctgcccgga acgtctctca agtttccaa

5423 aacttggaag gccaccacgg tgaccagatg ggcgagaaat cccagtcac gcagatttca
5483 caggaaactgg aggaacttcg agctgaacag cagagattga aatctcagga ctggagctg
5543 tcttggaacc tgaacgggct tcaagcagat ctgagcagct tcaagtcacca ggaattgaac
5603 gagaggaacg aagcttcaga tttgctggaa agactccggg aggaggtgac aaagctaagg
5663 atggagttgc aggtgtccag cggctttgtg tgcaacacgt gccctgaaaa gtggatcaat
5723 ttccaacgga agtgctacta cttcggcaag ggcaccaagc agtgggtcca cggccgtat
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5963 cccaccagcc ggagccaggg cgaggactgc gtgatgatgc ggggctccgg tcgctggaac
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6083 cggccagcca gcgaaggctc cgggagctcc atgggacctg attcaagacc agacctgac
6143 gggcgctctc ccacccctc tgcccctctc cactcttgag catggataca gccaggccca
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6263 ctgtgacatt ttctgccacc caaacggagg cagctgacac atctcccgct cctctatggc
6323 ccttgccctc ccaggagtac accccaacag caccctctcc agatgggagt gcccacaaca
6383 gcacctctc cagatgagag tacaccccaa cagcaccctc tccagatgca gccccatctc
6443 ctacgacccc caggacctga gtatcccag ctcaggtggt gagtccctct gtccagcctg
6503 catcaataaa atggggcagt gatggcctcc

(2) INFORMATION FOR SEQ ID NO:2873:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 825 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2873:

1 gtaagtatct tccctctgtg gctaggaaga caaggaatac atttttaaat gtctcctaaa
61 gcaaggacct gaaccacgt ctatgggatt attctgttcc ctctttgggc aatgcagaga
121 catgggaaga accaccaaag gtcatgaggg tctcttccag ggatccctgg acattgcctt
181 tcccagtggt gtgacaagag ttagagggtg cctaccttgc ctctgtcctt aggagggcag
241 agtaggagag ccttcggttt tctcatcctc ttacttgtat gttgaacttt acttaatgca
301 ggctatatcc aaaatacagt gtgaattagg ctagaataga aatgctttct attctacctt
361 cagaaaagga aaagggtagg gtaggggaaa tcatgggaga gattaaaggc agagaggaaa
421 cccagatggg actgtttaat cccaagcaa gaaaccacta ggaaagagag ataccttccc
481 tctaactttt gtattcgtg cactgacatt gctctctgtg ctgggtggaa attgatttct
541 gtgccaggat gttctaggct gaggccaaga ggggtcgtgc cctttaccca gtggaagaaa
601 aaggcaaggg tgaggctttg tagactttcc cattcggagg taatgatgcc tccttcagcc
661 ccacttcttc aaactgactc cactgtctcc catctccaca cccctccggt tctcatttag
721 ccaaaagcaca tcactcttgc agcccaccac tcagcttggc caggtgcgag acatctttcc
781 ccacttcata cctcccctcc ggccagggtg tgtttgcctc ctacg

(2) INFORMATION FOR SEQ ID NO:2874:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32351 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2874:

1 gatcacctga agtcaggagt tgcagaccag cctgaccaac atggagaaac cccgtctcta
61 ctaaaaatac aaaattagtt gggcatgggc gtgcatgcct gtaatcccag ctactcagga
121 ggctgaggca ggagtatcac ttgaaccag gagacggagg ttgcggtgag ccaagaacat
181 gccattgcac tccagccttg gcaacaagag caaaactccg tctcaaagaa aaaaaaatt
241 tttttttgtc aaccatgtg ggtatgaaat tgttttctcat tatttgcatt tcactaatta
301 ctagttaggt caaacatttt ttccctcatt tcttatccat taaagtttat tctgtgaatt
361 gccagttcat ggccattttg ggggtgtagt ttttcttact gatttatgga agtttaattg
421 ttttctggaa actaatattt tgctagtgtg gtgaattgta aatatcttct cccactgtat
481 ttttttaaaa actttttatt gtctgaatta gcacatatatt agtgaatgcc tctatgtgca
541 attctttttt tttttttttt tttttttttg agatggagtt tcgctcttgt ttccagact
601 ggagtgcagt ggcagatctc aagctcactg caaccttcac ctcccgggtt caagtgatc
661 tctgtcctca ggcctcctga gtactgtgga ttacaggtgc ccgctaccat gaccagctaa
721 tttttttgat ttttagtaga gacggggttt catcatgttg gccaggttgg tctcgaactc
781 ctgacctcag gtgatccacc cgcctcggcc ttccaaagtg tagggattac aggcagtagc
841 cagtgcagctc agcctctatg tgcaattctt aatgtcaagc tgaggagaa gtctaagaag
901 ttttatataa gtctgacacc cagggtgcct gtaattaaag gtggaatgaa attttaattt
961 gcgagttgat cctctgtttt tttagtctcag tacttctccc ttttttagat gtatgctttc
1021 cagataatta gtgagataaa gatttgattt tcacttttag catttctaaa agctgtaata
1081 tgctacctaa cttgttttta attcttgctc taacttctga tattttatag ttgtgtattt

5221 gagggttcta atttttccct gtcttcacca atacttggtg ttatctatct tttttattat
5281 agtcatcata gtctgtatga agtgatttct cactgtagt ttctcagtag taattaaaaa
5341 atttctacc tatttttagcc taaaattact ttcttgactc tcttcaagga gcctgccaga
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(2) INFORMATION FOR SEQ ID NO:2875:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2371 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2875:

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 241 aggaacccga cagctgggac agcatctttg gggacattga acgagtcac atgcctgggg
 301 tggttcactg gcagagcccc cacatgcagc cctactatcc tgctcttacc tcatggccat
 361 cctgtctagg agacatgctg gccgatgcca ttaactgctt aggtattcac tgggcatcta
 421 gcccagcttg cacagagctg gagatgaaca tcatggactg gctggcgaag atgctggggc
 481 tcccgagta cttcctgcac caccatccca gcagccgagg gggaggtgtc ttacagagca
 541 ctgtcagcga atccacttta attgcctgc tggcagcaag aaagaacaaa atcctagcaa
 601 tgacagctgt cgagcccgat gctaaccagt cctccctgaa cgctcgtctc gttgctaca
 661 cctctgatca ggctcactct tcagtggaga aggtgtgctt gatttccctt gtgaagatca
 721 gatttctacc tgtggagcag aacttctcac tccgaggaga agctctccag aaagctattg
 781 aggaagacaa gcaacagggc ttgtgtcctg tgtttgtctg tgcaacgtta gggactactg
 841 gagtctgtgc atttgacagg ctgtcagaac tggggcccat ctgtgccagt gagggactgt

901 ggctccacgt cgtatgctgct tatgcaggca cggcctttct gtgccctgag ctcccagggg
961 tectggaggg catcgagtac gccgactcct tcacctttaa cccttccaag tggatgatgg
1021 tacactttga ctgtactgga ttctgggtca aggacaagta caagctgcag cagaccttta
1081 gtgtgaaccc catctacctc cgacatgcc aactctgggc agccacggac ttcattgcatt
1141 ggcagatccc cttgagccgg cgctttcgct ccattaagct gtggtttgtg attcggctct
1201 tcggggtgaa gaatcttcaa gcacatgtca gacacggcac agaaaatggc aaatactttg
1261 aatctcttgt cagaagcgac ccttccctcg aaattcctgc taagaggcac cttggtttgg
1321 tggttttccg tctgaagggt cctaattgtc tcacagaaag tgtgttaaag gaaatagcca
1381 aagctggcca gctctttctc atcccggcta ctatccaaga caagctgac atccgtttca
1441 ctgtgacgtc ccagtttacc accaaggagg acatcctgag agattggcac ctcatccaag
1501 aggtgtctaa ccttgtctcg agccagcact gcacttccca gccgagccct cgggccaaga
1561 acgtcatccc gccaccgcca gggaccagag ggctatccct ggagtcagtc agcgagggag
1621 gagatgacct agcacaggcc cggaaagatca tcaagcagcc aggagccagt ctggcgagaa
1681 gggaaaggcg cctgcatctg gaaacgatgc cggatccctt tgatgattgc ttctctgaag
1741 agggccccc aaccaccaag cacaagctgt catcctttct gttcagttac ttgtcgggtc
1801 agaacaggag gaagacaacg cgggtccctca gctgcaacag tgtgcctatg agtgcaccaga
1861 agtcaactccc cgcagacgtc tcaactgaaga atgggggctc cttccggggc agaactcttt
1921 cggggttccc agaacaatg atgatgatga agaaagggtc cttcaaaaag ctgatcaagt
1981 tctacagcgt ccccgacttt cctgaatgca gttctcagtg tgctcgccag ctaccgtgct
2041 gccccctgga ggcctagggt tagagtcttc aatcagaatg caagggtgcc tgtgttcag
2101 ggagttgggg aaccctcgaa attgcctgca gtttgtgtgc ttattatgtg tgtgtgcac
2161 ttgagggaag caagccatt atttgatca taacctcaca gggcttctgt gatccacaac
2221 agattgtaac tgggaagttt aagcgggcat gctccagagg ttgcaggcgc ttgtgtgata
2281 gaaggggctg agacgggtgc atgtgttaa gtgtgtaag tgaaaaacaa cttagaaata
2341 aattgtgctt atatctaaaa aaaaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2876:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2355 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2876:

1 cttccacctc ctgcgtgtcc atctgtgaga aggagccaga gcccaaggga gatgatggag
61 cctgaggagt acagagagag agggagagag atggtggatt acatctgcca gtacctgagc
121 actgtgcggg agagacgtgt gacgccagac gtgcagcctg gctacctgcg agcccagctg
181 cctgagagtg ctccctgagga ccccgacagc tgggacagca tctttgggga cattgaacga
241 atcatcatgc ctgggggtgtt acattggcag agcccccata tgcacgccta ctaccagcc
301 ctcaactctt ggcctcctct gctaggagac atgctggctg atgccatcaa ctgcttggga
361 ttcaactggg catccagccc tgcgtgtaca gagctggaga tgaacgtcat ggactgggtg
421 gcaaaaatgc tgggacttcc agagcacttc ttgcaaccac accccagcag ccaggggcga
481 ggcgtcctgc agagcacgtg cagtgaatcc actttgattg ccctgctggc agcaaggaa
541 aacaaaatcc tggaaatgaa aacgtctgag cccgatgctg atgagtctg cctaaatgcc
601 cgactcgtgg cctatgcctc tgaccaggct cactcctctg tggaaaaggc tggtttgatt
661 tcccttgtga agatgaaatt tctgcctgtg gatgacaact tctcactccg aggggaagct
721 cttcagaagg ccatcgagga agacaagcag cggggcttgg tgcccgctct tgtctgtgca
781 aactaggga cactgggggt ctgtgcattt gactgctgt cagagctggg ccccatctgt
841 gccctgtgag ggctgtggct ccacatcgat gctgcttatg caggcactgc cttcctgtgc
901 cccgagttcc ggggggtttc gaaggggatt gagtatgccg actccttcac ctttaactct
961 tccaagtgga tgatgggtgca ttttgactgt actgggttct gggtaaggga caagtacaag
1021 ctgcagcaga ccttcagtgt gaatcccatc tacctcaggc atgccaactc agcggtggcc
1081 accgacttca tgcactggca gatccccctg agccgacggt ttctgctgtg taaactctgg
1141 ttctgtgatt ggctccttcgg ggtgaagaat cttcaagcac atgtcagaca tggtagtga
1201 atggctaaat attttgaatc tctggtcaga aacgacctt cctttgaaat tctgccaag
1261 aggcaccttg gcctgggtgt ttttcgtcta aagggtccta attgtctcac agaaaatgtg
1321 ttaaaggaaa tagctaaagc tggccgtctc ttcctcatct cggccactat ccaggacaag
1381 ttaatcatcc gtttcactgt gacatcccag tttaccacta gggatgacat cctgagagac
1441 tggaaatctca ttcgagatgc tgccactctc atcctgagtc agcactgtac ttccaacccc
1501 agccctcggg ttgggaacct catctcccaa atcaggggtg ccagagcctg ggcctgtgga
1561 acgtcccttc agtctgtcag tggggcagga gatgatccag tccaggccag gaagatcatc
1621 aagcagcctc agcgtgtggg agccggtccc atgaaaaggg aaaaaggcct ccattctgaa
1681 accctgctgg acccagttga tgactgcttt tcagaagagg ccccgatgac caccaagcac
1741 aagctgtcct ccttctgttt cagttacttg tctgtgcaga ctaagaagaa gacggtgcgc
1801 tccctcagtt gccacagtgt gccagtgaat gctcagaagc cactgcccac agagccctct
1861 gtgaagaatg ggggctcctc cagggtcaga atcttttcca ggtttccaga agacatgatg
1921 atgtcgaaga aaagtgcctt caaaaaactc atcaaatctc acagcgctcc cagctttcct
1981 gaatgcagct ctcaatgtgg actccagctg cctgtgtgcc ctctgcaggc catgggttag
2041 acacagggcc ttcagccaga gtcctgagat atacttcagg gactctgtga accctcaca

2101 attgtatgcc aactttgtgt gcttatgtgt acatgcattt ttcttggggc gagttcataa
 2161 ttttaatacaa attctcatag ggggtcatga cccacaatag gatacaaacg aagagtttaa
 2221 gccagcatga tccagatggg ttcagcagtc tggtcagtga gaaagggccg agggtagaca
 2281 ggcagcttct gtgggttcagc ttgtgacatg atatataaca cagaaataaa ttatgcttgt
 2341 ccctgaaaca aaaaa

(2) INFORMATION FOR SEQ ID NO:2877:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2396 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2877:

1 agtgcgcagg actggcaaga ggggaagccgg gctgctccac gcctttcacg ccttccacct
 61 cctgcgtgtc catctgtgag aaggagccag agcccaaggg agatgatgga gcctgaggag
 121 tacagagaga gaggagaga gatggtggat tacatctgcc agtacctgag cactgtgcgg
 181 gagagacgtg tgacgccaga cgtgcagcct ggctacctgc gagccagct gcctgagagt
 241 gctcctgagg accccgacag ctgggacagc atctttgggg acattgaacg aatcatcatg
 301 cctgggggtg tacattggca gagcccccatt atgcacgcct actaccagc cctcacctct
 361 tggccctccc tgctaggaga catgctggct gatgccatca actgcttggg attcacctgg
 421 gcattccagcc ctgcgtgtac agagctggag atgaacgtca tggactgggt ggcaaaaatg
 481 ctgggacttc cagagcactt cttgcaccac caccacagca gccaggggcg aggcgtcctg
 541 cagcagacgg tcagtgaatc cactttgatt gccctgctgg cagcaaggaa gaacaaaatc
 601 ctggaaatga aaacgtctga gcccgatgct gatgagtcct gcctaaatgc ccgactcgtg
 661 gcctatgcct ctgaccaggc tcactcctct gtggaaaagg ctggtttgat tcccttctg
 721 aagatgaaat ttctgctgt ggatgacaac ttctcactcc gaggggaagc tcttcagaag
 781 gccatcgagg aagacaagca gcggggcttg gtgcccgtct ttgtctgtgc aacactaggg
 841 accactgggg tctgtgcatt tgactgcctg tcagagctgg gcccatctg tgcctgtgag
 901 gggctgtggc tccacatcga tgctgcttat gcaggcactg ccttctctgt ccccgagttc
 961 cggggggtttc tgaaggggat tgagtatgcc gactccttca cctttaatcc ttccaagtgg
 1021 atgatgggtg attttgactg tactgggttc tgggtcaagg acaagtacaa gctgcagcag
 1081 accttcagtg tgaatcccat ctacctcagg catgccaaact caggcgtggc caccgacttc
 1141 atgcaactgg agatccccct gagccgacgg ttctgctctg ttaaaactct gtctctgatt
 1201 cggtccttcg gggtaagaa tcttcaagca catgtcagac atggtagtga aatggctaaa
 1261 tattttgaat ctctgttcag aaacgacctc tcctttgaaa ttcctgccaa gaggcacctt
 1321 ggctgtgtgg tttttcgtct aaagggctct aattgtctca cagaaaatgt gttaaaggaa
 1381 atagctaaag ctggccgtct cttcctcact ccggccacta tccaggacaa gttaatcatc
 1441 cgtttcactg tgacatccca gtttaccact agggatgaca tcctgagaga ctggaatctc
 1501 attcgagatg ctggcactct catcctgagt cagcactgta cttcccaacc cagccctcgg
 1561 gttgggaacc tcactcctca aatcaggggt gccagagcct gggcctgtgg aacgtccctt
 1621 cagctgttca gtggggcagg agatgatcca gtccaggcca ggaagatcat caagcagcct
 1681 cagcgtgtgg gagccgttcc catgaaaagg gaaaatggcc tccatcttga aacctgtctg
 1741 gaccagtttg atgactgctt ttcagaagag gcccagatg ccaccaagca caagctgtcc
 1801 tccttctctg tcagttaact gtctgtgcag actaagaaga agacggtgcg ctccctcagt
 1861 tgcaacagtg tgccagtgag tgctcagaag ccactgcccc cagaggcctc tgtgaagaat
 1921 gggggctcct ccagggtcag aatcttttcc aggtttccag aagacatgat gatgctgaag
 1981 aaaagtgcct tcaaaaaact catcaaattc tacagcgtcc ccagctttcc tgaatgcagc
 2041 tctcaatgtg gactccagct gccctgttgc cctctgcagg ccatggttta gacacagggc
 2101 cttcagcaga gtctgaggat ataactcagg gactctgtga acccctcaca attgtatgcc
 2161 aactttgtgt gcttatgtgt acatgcattt ttcttggggc gagttcataa ttttaataca
 2221 attctcatag gggctcatga cccacaatag gatacaaacg aagagtttaa gccagcatga
 2281 tccagatggg ttcacatcagc tggtcagtga gaaagggccg agggtagaca ggcagcttct
 2341 gtgggttcagc ttgtgacatg atatataaca cagaaataaa ttatgcttgt ccctga

(2) INFORMATION FOR SEQ ID NO:2878:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 40298 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2878:

1 gtaagtatct tccctctgtg gctaggaaga caaggaaatc atttttaaat gtctcctaaa
 61 gcaaggacct gaaaccagct ctatgggatt attcttgttc ctctttggtc aatgcagaga
 121 catgggaaga accaccaaag gtcagtggg tctcttccag ggatccctgg acattgcctt
 181 tcccagtggt gtgacaagag tttagagggt cctaccttgc ctctgtcct aggagggcag
 241 agtaggagag ccttcgggtt tctcatctc ttacttgtat gttgaacttt acttaatgca
 301 ggctatatcc aaaatacagt gtgaattagg ctagaataga aatgccttct attctacctt

3241 gaaatacaaaa ttctacaact gaaaaaatat aatatctgat attaagaaat caataaatgg
 3301 tttatttatat tagctacatt tgaagagaca actaaaaaag aaaaatattt tcaaaccaac
 3361 tcagaaacaa gaagatggaa aataaagaat acaatgctat ttatatattat atataatagt
 3421 atataataa cacaagttta acataggact gcatttgcag aatagaagag agataatggg
 3481 gagatagcaa cacttggaga aaaaataacg aacacttttt tatttaaagt gcctaacttg
 3541 gctgggtgtg gtggctgaca cctgtaatcc caacactttg ggaggctgag atgggtggat
 3601 catttgagcc caggagtcca agaccaactt gggtaacatg gcgaaacccc atctctacag
 3661 aaaaactcca agaaataaaa aacaataatc atctgagtgt ggtagcacat gcctgcgtcc
 3721 ttgctactca ggagggtggg gtggcagaat taccagggcc tggaaagtaa ggctgcaatg
 3781 agctgtgatc gcatcactat acttcagcct gggtgacgag tgagaccctg tctcaacaaa
 3841 taaaaataaaa aataaaaata aaaaatgccta acttgggtgt tggcactttc taaaattgac
 3901 acataaatatt tgtacctgtt tatggagtat atgtgatatt ttgatacatg catacaatgt
 3961 gtgtaatgat caaatcagga tatttaagat atccatcatc tcaaacattt tctttgtgt
 4021 tcagaacatt ccaaatctag ctattttgaa atatacaata aattattaac tatagtcac
 4081 ctaatgtgct attgaatatt attgaattcc atctaattat atgtttgtac caattaacca
 4141 atctctactt attcctcacc cccagctccc accaacccct tccagctctc ggtaactatc
 4201 attttattct ctacctccat gagatcaaat tttttacctc ccatactggt gtcaatatta
 4261 ttattttttcc caccctggct cctaattgaag gatttattga caatatcact ggaatctaaa
 4321 tctcttaggc cattttttca ccaatgccct tattttctta gggctttttt ttttcttaaa
 4381 tcaacagttt taatgagata taattcccat tctataaaat ttcctcggtt gaagtgtaca
 4441 gttaaataagc ttttagtata tccacagaag tgtgcaacca tcaccataat aaattttaaa
 4501 acattttcag cagggcgcag tggctcacgc ctgtaatccc agctactcag gaggctgagg
 4561 caggagaatt gcttgaaccc aggaggcaga gggttcagtg agccgagatt gcaccactgc
 4621 aatccagcct gggccacaga gtgagactcc atctcaaaac aaaacaaaac aaagcaaaat
 4681 aaaaacaaagc aaaaataaac aaacacaaa cccaacaatt ttgaacattt tcatcttacc
 4741 accctgccaa aaatccctgt tctccttagc catcaatctt cagctcccta cccacttcta
 4801 accatgaatc tattttgtag atttgtctat tctcgatatt tcatatgaat gaaataatat
 4861 aatatatggt tcttgtgac tagtttcttt cacttagtat gtttccaagt tcatccatgt
 4921 ttgggtatgt atcagtactt cattcctttt tatcatggaa taatattctg ttgtattgat
 4981 atactacggt tcattcattc atctgaacat ttggattatt tccatttttg tctattataa
 5041 taattctgct atgaacaccc atgtatacgt ttttgtgtgg acatgatctt attttccttg
 5101 gatatacacc tagcagtaga attgttgagt cataaagaac tctaggttta gctttctggg
 5161 gagcttccag attattttcc aaaaatggctg tgccatttta cattcccacc agtaaagtat
 5221 gagggttcta attttccctt gtcttcacca atactgttg ttatctatct tttttattat
 5281 agtcatcata gtctgtatga agtgatttct cactgtagtt ttttcagtag taattaaaaa
 5341 atttcttacc tatttttagc taaaattact tctctgactc tcttcaagga gcctgccaga
 5401 gaattctctc tctcgtgctg tctcccttat gcctgggcat aagctctgat aatgccctgt
 5461 ctgggaaaac tcttttgcc tctcaattt ctattacatt gagagcccaa gaacctatgg
 5521 tcagtaacag gccaatgaga agcctcctgc attagcttag gtgaaggata atgggtgctt
 5581 ggaccggaat aggggtgtag tcatggaaat ggggagaatt tgacagacta gatttatatt
 5641 ggaaatagaa ctgaatctga acagattgaa ttgggcaggg agcagggaaa gtgaagggga
 5701 aggaagcac caggtttatg ccttcagcat ttgggtggat gaatggatgg atgaaggat
 5761 agatggatgc atggatggtg gttggatgga tgagtgttg gatgaatgga cggctcaagg
 5821 gtgaatagat ggtggtatgg aaaaatggaga gatgatgaac tgagatggg aagactagaa
 5881 gtggggcata tttttgggga aagacagttt tgcaatacgt taagtttgag gtgcctcaga
 5941 gtcataagag aggatgtgtc agaaaaggcag ttggatataa gattttgaa ctaaaaagac
 6001 agggagggcc tgatggtatg tttaaaccta tacggatata acataggtaa catttcaagc
 6061 ctaagaaatg ggccgggcgc agtggtcac acctgtaac ccagcacttt ggaaggctga
 6121 ggcgggtgga tcacttgagg tcaggagtgc gagacaaacc cagccaacat ggtgaaaccc
 6181 catctctgct aaaaacacaa aaattagtg ggcattggtg cacatacctg taggccagc
 6241 tactcaggag gttgaggtg gagaattgct tgaaccggg aggcagagg tgcagtgagc
 6301 caagattgag ccactgcact ccagcctggg cgacagagca agactccgtc taaacaaaac
 6361 aaaaacaaaa aagccttaga aatgggcaat gccaccaaag cagaaagatg aaaggagggc
 6421 aatgccctga ggtgtgccag cattggagga aacaaacagc cagagatgta ggaggaaagc
 6481 ccagagaaac tgtgagctgc aaggatgaag tagtaacaaa taaaatgcca ccaagagaac
 6541 cagaaggacg actggaaaca aataaacaag aaagactatt gcatttagca acgtgaaaac
 6601 gttggattac tttttactca gaaatcaaac ccaaggata gtgtttcccc tccctacggg
 6661 gtttctgcag gtccctttac acgccccct ctacttcttt aagtgtctaa agtgattaat
 6721 ttgggggtgat gttttaattt ctattctttt tggcttataa ctgtgttttt tcatctttg
 6781 caacaacaga tagtatgttg taatagaaaa atccattgtg gtcaatgata acttctgcct
 6841 gttcctgggc taactattag tgcctgttcc tccctcccta ctgctgataa
 6901 ggaaacaggg gcaggaataa tactaataat ttgtgctact ttttctgcat acccttggcc

6961 ttattctggt ctactgagct gggagcttgt ctgaggctgg agctctattg tctgaatcca
7021 ggggcagaaa gaactgaggg ctcttttacg gcatccacct ggaggtgcc tgcaggttg
7081 ggttgctaag tgcactgctt aatttagaag cgccttttat cctggctctc ttgaccagtc
7141 aaagtgtggg tcgctgtttt ctacaaggac tggggaaaaga aagggtggaa ttaattaaac
7201 ctggaggaag ggactttgaa gggcggagct aagggtcaaag aaagaaccct ttaaataaag
7261 ggccccacact ggctgccagg gagtgcgcag gactggcaag aggggaagccg ggctgctcca
7321 cgcctttcac gccttcacac tcctgcgtgt ccatctgtga gaaggagcca gagcccaagg
7381 gagatgatgg agcctgagga gtacagagag agagggtgagc aacgggcac cctggccctc
7441 ttccctgctg ctactcctgc aggaacggct gctggtgggt ggcccttaga ttgtggggtg
7501 acatttgatg ggagcattag aattgccttc tgagagttgg caccagcaac attttttttt
7561 ctgcgaaagg aatgtgggat cagagtgtaa aacttttctc aaccactcct tcattctccc
7621 tctcatatac ccactctcac atatgtccac actaccgtgc cttgcttttc cttcccaact
7681 tcccacaaaa ttgaggattt ggatccctga gccactagat gggaaaaggg gattgttcat
7741 attctgaaat agaaaaaaat tttctcaata ttctgtaatc actgcaaatc ctttctttct
7801 taacattcat tccttcatgt gtgaatctat cagcagtgtt ctttcattta gtcattcatt
7861 tcataaatat ttagtaggtg cctactctgt atcaggcaaa accaagtggg tatccagttc
7921 tcaggcatgg atctccctta gcaggaaagt aggtagtgtc ttaaaaaaga atcttgaatg
7981 tctatttcta taatgtttta tatcctccta ctcactaatt agtgtgcgtt agcttattcc
8041 attgctttcc taaggcactg tcagctgaga gcaagtccct gtggatattt atcttctgag
8101 tggaacacaa atacatttag cactgttcct ggatcagtgg agggttaggt ctagagctct
8161 cagatctctg gtggggccct gctggagaag aaccaggatg tgagaggggt gaaggggagc
8221 agaaggaaga tagaatggtg tggaaatcta ccttgcctc ataagttttg tctggggttg
8281 gttctgtttc taagaacttt gcataagctg atgcagaggg gagaactga gtccctctc
8341 ctaggtaaaa gcagcccagg gagtactaag gaatggatgt tgagacagac aaagagatat
8401 gtacacacac acacatgcac acacagcaac agaggcactg aagactgcaa tctgaaagaa
8461 taaataattt gcaatagttt cagagtgttc aacttgactt ttttttctt ccttactcat
8521 atgttcatte acttgataca ttttttttta gcatctaaaa aatatcttaa gcactgaggt
8581 gttgatggag gcagcaggag ggagagaaaag tcattaagat ttggtgccac atttcccagg
8641 ccagggcagg gggcttgggtc tggatccatg gttgtgctt agggattctg tgagcctcag
8701 aaattataca caaagtctg tgtatatgta agcctacagt tttaatcaga ttcttgaatt
8761 aagtcctcat atgagtccaa aaaagatgaa taataactga ttcaatgggg atggtgaaaa
8821 aatagatttt tttgtccttt atcggaaactg ggcattggaat ctttctatct gtgctaacag
8881 atataactgg tgggtgtgtg tgaacaatt tttggataca aagagctata gagtttctat
8941 tgaacctata aaatagttaa tagatgttct gtttctgaga aggaagaaaa ggtaggagag
9001 acaatcaaaa ttgaagtgga taaaggaagg ggaagaaaaa tgaaacgttt cactttggcg
9061 ctagagtttt gtgctttgga gattttcctt tttgttcatt tgctcactta gaaactccct
9121 ccatcattca ttcactccct cactcttttt ttaaattctg aagataaggt cgtgcagggg
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37408 gtgaagaatg ggggtcctc cagggtcaga atcttttcca ggtttccaga agacatgatg

37468 atgctgaaga aaagtgcctt caaaaaactc atcaaatctt acagcgtccc cagctttcct
37528 gaatgcagct ctcaatgtgg actccagctg cctgtttgcc ctctgcaggc catggtttag
37588 acacagggcc ttcagccaga gtctgaggat atacttcagg gactctgtga acccctcaca
37648 attgtatgcc aacttttgtt gcttatgtgt acatgcattt ttcttggggc gagttcataa
37708 ttttaataca attctcatag gggttcatga cccacaatag gatacaaacg aagagtttaa
37768 gccagcatga tccagatggg ttcagcagtc tggtcagtga gaaagggccg agggtagaca
37828 ggcagcttct gtggttcagc ttgtgacatg atataataca cagaaataaa ttatgcttgt
37888 ccctgaaaca aaaaa
37903 agtgcgcagg actggcaaga gggaagccgg gctgtccac gcctttcacg cttccacct
37963 cctgcgtgtc catctgtgag aaggagccag agcccaaggg agatgatgga gcctgaggag
38023 tacagagaga gagggagaga gatggtggat tacatctgcc agtacctgag cactgtgagg
38083 gagagacgtg tgacgccaga cgtgcagcct ggctacctgc gagccagct gcctgagagt
38143 gctcctgagg accccgacag ctgggacagc atctttgggg acattgaacg aatcatcatg
38203 cctgggggtg tacattggca gagcccccac atgcacgct actaccagc cctcacctct
38263 tggccctccc tgctaggaga catgctggct gatgccatca actgcttggg attcacctgg
38323 gcatccagcc ctgctgtgtac agagctggag atgaacgtca tggactggtt ggcaaaaatg
38383 ctgggacttc cagagcaact cttgcaccac caccacagca gccagggcgg aggcgtcttg
38443 cagcagacgg tcagtgaatc cactttgatt gccctgtgag cagcaaggaa gaacaaaatc
38503 ctggaaatga aaacgtctga gcccgatgct gatgagtcct gcctaaatgc ccgactcgtg
38563 gcctatgcct ctgaccaggc tcaactctct gtggaaaagg ctgggtttgat ttcccttgtg
38623 aagatgaaat ttctgcctgt ggatgacaac ttctcactcc gaggggaagc tcttcagaag
38683 gccatcgagg aagacaagca gcggggcttg gtgcccgtct ttgtctgtgc aacactaggg
38743 accactgggg tctgtgcatt tgactgcctg tcagagctgg gccccatctg tggccgtgag
38803 gggctgtggc tccacatcga tctgtcttat gcaggcactg ccttcctgtg ccccgagctc
38863 cgggggtttc tgaaggggat tgagtatgcc gactcctca cctttaatcc ttccaagtgg
38923 atgatgggtg attttgactg tactgggttc tgggtcaagg acaagtacaa gctgcagcag
38983 accttcagtg tgaatcccat ctacctcagg catgccaaact caggcgtggc caccgacttc
39043 atgcactggc agatccccct gagccgacgg ttctgctctg ttaaactctg gttcgtgatt
39103 cgggtccttcg ggggtgaagaa tcttcaagca catgtcagac atggtactga aatggctaaa
39163 tattttgaat ctctgttcag aaacgaccct tcctttgaaa ttcctgcaa gaggcacct
39223 ggcctgggtg tttttcgtct aaagggtcct aattgtctca cagaaaatgt gttaaaggaa
39283 atagctaaag ctggccgtct ctctctcatc ccggccacta tccaggacaa gttaatcatc
39343 cgtttcactg tgacatccca gtttaccact agggatgaca tcttgagaga ctggaatctc
39403 attcgagatg ctgccactct catcctgagt cagcactgta ctcccaacc cagccctcgg
39463 gttgggaacc tcacttccca aatcaggggt gccagagcct gggcctgtgg aacgtccctt
39523 cagctctgtca gtggggcagg agatgatcca gtccaggcca ggaagatcat caagcaccct
39583 cagcgtgtgg gagccggtcc catgaaaagg gaaaatggcc tccatcttga aacctgtctg
39643 gaccagttg atgactgctt ttcagaagag gccccagatg ccaccaagca caagctgtcc
39703 tccttcctgt tcagttactt gtctgtgcag actaagaaga agacgggtcg ctccctcagt
39763 tgcaacagtg tgccagtga tgctcagaag cactgcccc cagaggcctc tgtgaagaat
39823 gggggctcct ccagggtcag aatcttttcc aggtttccag aagacatgat gatgctgaag
39883 aaaagtgcct tcaaaaaact catcaaatc tacagcgtcc ccagctttcc tgaatgcagc
39943 tctcaatgtg gactccagct gccctgttgc cctctgcagg ccatggttta gacacagggc
40003 cttcagcaga gtctgaggat atacttcagg gactctgtga acccctcaca attgtatgcc
40063 aacttttgtt gcttatgtgt acatgcattt ttcttggggc gagttcataa ttttaataca
40123 attctcatag gggctcatga cccacaatag gatacaaacg aagagtttaa gccagcatga
40183 tccagatggg ttcacatcagc tggtcagtga gaaagggccg agggtagaca ggcagcttct
40243 gtggttcagc ttgtgacatg atataataca cagaaataaa ttatgcttgt ccctga

(2) INFORMATION FOR SEQ ID NO:2879:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1327 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2879:

1 gatccccaga gactttccag atatctgaag aagtcctgat gtcactgcc cggctccttc
61 ccaggtagag caaactcct cgctgcaacc caactggctc cctttacctt ctacacacac
121 acacacacac acacacacac acacacacac acacacaaat ccaagacaac actactaagg
181 cttctttggg agggggaagt agggataggt aagaggaaag taagggacct cctatccagc
241 ctccatggaa tcttgacttc ttttcttgt ttttccacct ccttccacct catcttttaa
301 actttagact ccagccacag aagcttacaa ctaaaagaaa ctctaaggcc aatttaatcc
361 aaggtticat tctatgtgct ggagatgggt tacagtaggg tgaggaaacc aaattctcag

421 ttggcactgg tgtacccttg tacaggtgat gtaacatctc tgtgcctcag tttgctcact
481 ataaaaataga gacggtaggg gtcaggttga gcactacctg actagcatat aagaagctttt
541 cagcaagtgc agactactct taccactctc ccccaagcac agttggggtg ggggacagct
601 gaagaggttg aaacatgtgc ctgagaatcc taatgaaatc ggggttaaag agcctggaac
661 acatcctgtg accccgctg tctgttagga agccagtctc tggaaagtaa aatggaaggg
721 ctgcttgagg actttgagga tatttagccc accccctcat ttttacttgg ggaaactaag
781 gcccagagac ctaaggtgac tgcctaagtt agcaaggaga agtcttgggt attcatccca
841 gggtgggggg acccaattat ttctcaatcc cattgtattc tggaaatggg aatttgtcca
901 cgtcactgtg acctaggaac acgcgaatga gaaccacag ctgaggcct ctgagcacag
961 aacagctgtt ctcccagga aatcaacttt ttttaattga gaagctaaaa aattattcta
1021 agagaggttag cccatcctaa aaatagctgt aatgcagaag ttcattgttca accaatcatt
1081 tttgcttagc atgcaaaaaa tgaaaaactaa gtttattaga gaggttagag aaggaggagc
1141 tctaagcaga aaaaatcctg tgccgggaaa ccttgattgt ggctttttaa tgaatgaaga
1201 ggctccctg agcttacaat ataaaagggg gacagagagg tgaaggctca cacatcaggg
1261 gcttgctctt gcaaaaccaa accacaagac agacttgcaa aagaaggcat gcacagctca
1321 gcactgc

(2) INFORMATION FOR SEQ ID NO:2880:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1601 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2880:

1 aaaccacaag acagacttgc aaaagaaggc atgcacagct cagcactgct ctgttgctg
61 gtccctcctga ctggggtgag ggccagccca ggccagggca cccagtctga gaacagctgc
121 acccacttcc caggcaacct gcctaacatg ctccagatgc tccgagatgc cttcagcaga
181 gtgaagactt tctttcaaat gaaggatcag ctggacaact tgttgttaaa ggagtccttg
241 ctggaggact ttaagggtta cctgggttgc caagccttgt ctgagatgat ccagttttac
301 ctggaggagg tgatgcccca agctgagaac caagaccag acatcaaggc gcatgtgaac
361 tccctggggg agaacctgaa gacctcagg ctgaggctac ggcgctgtca tgcatttctt
421 cctgtgaaa acaagagcaa ggccgtggag cagggtgaaga atgcctttaa taagctccaa
481 gagaaggca tctacaaagc catgagttag tttgacatct tcatcaacta catagaagcc
541 tacatgacaa tgaagatagc aaactgagac atcagggttg cgactctata gactctagga
601 cataaattag aggtctccaa aatcggatct ggggctctgg gatagctgac ccagcccctt
661 gagaacacct attgtacctc tcttatagaa tatttattac ctctgatacc tcaaccccca
721 tttctattta tttactgagc ttctctgtga acgatttaga aagaagccca atattataat
781 ttttttcaat atttattatt ttcacctggt tttaaactgt tccataggg tgacacacta
841 tgggtatttga gtgttttaag ataaattata agttacataa gggaggaaaa aaaatgttct
901 ttggggagcc aacagaagct tccattccaa gcctgaccac gctttctagc tgttgagctg
961 ttttccctga cctccctcta atttatcttg tctctgggct tggggcttcc taactgctac
1021 aaataactctt aggaagagaa accagggagc ccctttgatg attaatccac cttccaggtg
1081 ctccggaggga ttcccttaac ctcatccccc aaccacttca ttcttgaaag ctgtggccag
1141 cttgtttatt ataacaacct aaatttggtt ctaggccggg cgcggtgggt cacgcctgta
1201 atcccagcac tttgggaggg tgaggcgggt ggatcacttg aggtcaggag ttcctaacca
1261 gcctggtcaa catggtgaaa cccggtctct actaaaaata caaaaattag ccgggcatgg
1321 tggcgcgcac ctgtaatccc agctacttgg gaggtgagg caagagaatt gcttgaaccc
1381 aggagatgga agttgcagtg agctgatata atgccctgt actccagcct gggtgacaga
1441 gcaagactct gtctcaaaaa aataaaaaat tggttctaag agaaactcag
1501 tttaactaga atttattcaa ttctctggg aatgttacat tgtttgtctg tcttcatagc
1561 agattttaat tttgaataaa taaatgtatc ttattccat c

(2) INFORMATION FOR SEQ ID NO:2881:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4181 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2881:

1 agatcttgta aactgtagaa tgcacctcc aaaatctatt tgcataagca cacacacaca
61 cacacacaca cacacccag cagttcttgc ctgccagat tctctgcag ctaaagtgtat
121 gaaacttact gggcgagact tcttaaaaaa attattaggg tctctgggt tgggtgacct
181 ttaaaccctt ggactttacc acctctatc tctctatct ccttgcaaca aaggttagga
241 gaacaagaat gcagaaaaaa cgggtccttg atgacatctg agtgcctgct ttgggttctt
301 tgatgagtga gacagaaaat aaaatacaac cccctctttt aaaagccatg cttactcagg
361 ttttcttcta tttgcagta aatacagaaa tgagagaata ttttgagca gggatggaag
421 aagagaggta ttccccttcc caaaccttc tgatttccca gtacatcccc cactggaaaa
481 attcatttta aatcagtata ataagcattg attagatgcc tactatgcat ctgggcttga

541 gggcaaaactg gactcaggcc ttttggcctc aagaagctca cagtgtgaga gtggcatttg
601 tgtctctcttg aaattcacag gactaaaattg tgcccaggct gacattctat ccatccatag
661 gtgcctgcct tctcacttcc ctctcttcat gggctcttgc cttgtacca aatccaaacc
721 caaatctcct cacatgtgag tgttggcatt catgtctcag acatgacctt tgggcttgagg
781 acttttcccc gtggacccca gtgacttttc agatgaacag gtatcttcaa aaacttgaga
841 aataggagtc ctgtttgttg ttcttgttgc tttgtcaata taaggcacag ggtctttatt
901 caaatgttca tactatctct tgacagaaat actatgagac atattgatgg agaagccgtt
961 atctccatct gctaaatgag gacttgcacc agggaaacttg cccatgggtc tctccaacca
1021 cttaaattct gaaattttga atgagagtgg acagtaattt caaatcaatg gggaaagaat
1081 caaatcttca gcaaatggct tgagataatt agctacacat ttcagaacaa ataaagaagt
1141 cagatccggg ccgggcacag tggctcatgc ctgtaatctc agcactctgg gaggccaagg
1201 cgggcggatc ataaggtcag gagatcgaga ccatcctggt taacacagtg aaccctctc
1261 taataaaaaa acaaaaaaaa ataaaaaaa ttagccgggc gtggtgccag gcgcctgtag
1321 tcccagctac tcgggacgct gaggcaggag aatggcctga actcgggagg cagagcttgc
1381 aggtgagctg agatcatgcc actgcactcc agcctgggca acagagcgag actctgtctc
1441 aaaaaaaaaa aagaagtcag atcctaacct caaccctatt taacagatta tagatgaaag
1501 aaagggtacaa atggctttta catacctccc ttctccctga cattttgtat gtgtgtgtgt
1561 gtgtattttac acacacatct catataagga aattgaaggg aggctgcctg catccctgag
1621 tcaactctccc tctccttctg aatgcttacc tgtgcccaga ccacctcctt agcctcgcac
1681 cctccaggct tacagggcac tcttctatgc ccatcccaag tatagctgaa cctccaagg
1741 gccagccttg gtgctaagta ccaagtacgc aaagattaat aaaacaatgt cctgtttcag
1801 ggagctcaaa gctgattcgg cagggcattg tgtgtacatg aatgataacc acgtagggtt
1861 gcagggtttcc tagtgaggta agcacaaggc aagatgggaa acaaaggaag gaggggttca
1921 cagcctcacc cagagtcagc aaccctggc ctgcctgggt cccatgctga gtccacttct
1981 ggaacacca gctcagagag ggggttagac ctgcaggcta acacagacac agcccagaaa
2041 acccaggagc cgagggggaa ggagaaaggt gcaagaaggg gaaacccagg tccctggccc
2101 cttctctctg cttcctggca gcagaactca gacagaacct ttaagccagt ctaagtctgg
2161 caggaccagt aagttctgag ttactccat actagtttct agcaggctct ttctcacttc
2221 ctgattctta ggtttctaca ttgacactcc ctgaagagtt gggaagagac accacagtcc
2281 cctgaccttg atccataggt cacacagcag gcattccacag ggtgggctg ggcctctca
2341 tccctccctc ccactcactt cacgctggct gggccccaag gtgtttgcac cccttgcatg
2401 gagtgcactt ctctagtcca gcaagctcag aacctgctgc cactggagtt gtcccattgc
2461 tgatgcagaa aggtgaagaa ctacagaaac actggaaatg cccctccatct ggtccatgg
2521 ctacttaatg ctccctggca ggcaggagga caggtgctat tccctgttgg gacagatgaa
2581 aaacagacac agggaggatg agtgatttgc cctgactata gagtggcagg gccaaaggcag
2641 agcccaggcc tccctgcact aggtcagttg tccctccagt tacagtctaa actggaatgc
2701 aggcaaaagc cctgtggaag gggaaggtga aggtcaatc aaaggatccc cagagacttt
2761 ccagatatct gaagaagtcc tgatgtcact gcccggtcc ttcccaggt agagcaacac
2821 tctcgcgcgc aacccaactg gctcccctta cttctacac acacacacac acacacacac
2881 acacacacac acacacacaa atccaagaca acactactaa ggcttctttg ggaaggggaa
2941 gtagggatag gtaagaggaa agtaagggac ctctatcca gctccatgg aatcctgact
3001 tcttttccct gttatttcaa cttcttccac cccatctttt aaactttaga ctccagccac
3061 agaagcttac aactaaaaga aactctaagg ccaatttaac ccaagggttc attctatgtg
3121 ctggagatgg tgtacagtat ggtgaggaaa ccaaatcttc agttggcact ggtgtaccct
3181 tgtacaggtg atgtaacatc tctgtgcctc agtttgcctc ctataaaata gagacggtag
3241 gggctcatgg gagcactacc tgactagcat ataagaagct ttcagcaagt gcagactact
3301 cttaccactc tcccccaagc acagttgggg tgggggacag ctgaagaggt ggaacatgt
3361 gectgagaat cctaataaaa tcggggtaaa ggagcctgga acacatcctg tgaccccgcc
3421 tgtcctgtag gaagccagtc tctggaaagt ggggaaacta aggccagag acctaaggtg
3481 gatatttagc ccacccctc atttttactt gttattcatc caggttgggg ggaccaatt
3541 actgcctaag tttagcaagga gaagtcttgg gtattcatcc caggttgggg ggaccaatt
3601 atttctcaat cccattgtat tctggaatgg gcaatttgc cactgcactg tgaccttaga
3661 acacgcgaat gagaacccac agctgagggc ctctgcgcac agaacagctg ttctccccag
3721 gaaatcaact ttttttaatt gagaagctaa aaaattatc taagagaggt agcccatcct
3781 aaaaatagct gtaatgcaga agttcatgtt caaccaatca tttttgctta cgtgcaaaa
3841 attgaaaact aagtttatta gagaggtag agaaggagga gctctaagga gaaaaatcc
3901 tgtgccggga aaccttgatt gtggcttttt aatgaatgaa gaggcctccc tgagcttaca
3961 atataaaagg gggacagaga ggtgaaggtc tacacatcag ggcttgctc ttgcaaaacc
4021 aaaccacaag acagacttgc aaaagaaggc atgcacagct cagcactgct ctgttgctg
4081 gtctcctga ctggggtgag gccagccca gccagggca ccagctctga gaacagctgc
4141 acccacttcc caggcaacct gcctaacatg cttcgagatc t

(2) INFORMATION FOR SEQ ID NO:2882:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1314 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2882:

```

1  gggggggggg atttagagac ttgctcttgc actaccaaag ccacaaagca gccttgacaga
61  aaagagagct ccatcatgcc tggctcagca ctgctatgct gcctgctctt actgactggc
121 atgaggatca gcaggggcca gtacagccgg gaagacaata actgcacca cttcccagtc
181 ggccagagcc acatgctcct agagctgcgg actgccttca gccagggtgaa gactttcttt
241 caaacaagg accagctgga caacatactg ctaaccgact ccttaatgca ggactttaag
301 ggttacttgg gttgccaagc cttatcgga atgatccagt ttacctggg agaagtgatg
361 ccccaggcag agaagcatgg cccagaaatc aaggagcatt tgaattccct gggtgagaag
421 ctgaagaccc tcaggatgcg gctgaggcgc tgtcatcgat ttctccctg tgaataaag
481 agcaaggcag tggagcaggt gaagagtgat ttaataaag tccaagacca aggtgtctac
541 aaggccatga atgaatttga catcttcac aactgcatag aagcatacat gatgatcaaa
601 atgaaaagct aaaacacctg cagtgtgtat tgagtctgct ggactccagg acctagacag
661 agctctctaa atctgatcca gggatcttag ctaacggaaa caactccttg gaaaacctcg
721 tttgtacctc tctccgaaat atttattacc tctgatacct cagttcccat tctatttatt
781 cactgagctt ctctgtgaac tatttagaaa gaagcccaat attataattt tacagtattt
841 attattttta acctgtgttt aagctgtttc cattggggac actttatagt atttaaaggg
901 agattatatt atatgatggg aggggttctt cctggggaag caattgaagc ttctattcta
961 aggtctggcca cacttgagag ctgcagggcc ctttgctatg gtgtccttc aattgtcttc
1021 atccctgagt tcagagctcc taagagagtt gtgaagaaac tcatgggtct tgggaagaga
1081 aaccagggag atcctttgat gatcattcct gcagcagctc agagggttcc cctactgtca
1141 tccccagacc gcttcacccc tgaaaactgt ggccagtttg ttatttataa ccacctaaaa
1201 ttagttctaa tagaactcat ttttaactag aagtaatgca attcctctgg gaatggtgta
1261 ttgtttgtct gcctttgtag cagcatctaa tttgaataa atggatctta ttctg

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(2) INFORMATION FOR SEQ ID NO:2883:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7207 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2883:

```

1  cagtcaggag agagggcagt gaggtccat gctagctggg tcttgagcct cttctggggt
61  tcagtctctg atctacagca gtgtgtccac acctaaaaa tcagctcaga gaggcagttg
121 cttctgctgt tggaaacgga catcccaaaa aaaaacaaaa aacagaaatc aaaagggaag
181 gagaagtgga aagggatgga ggcagcttgt ccccttccct gtgcttgctg ctggtagaaa
241 actcagcctg gaactgaccg gagcagcagt tcttgagtca attccattcc aacttctaga
301 agattctttt cccgtcgaag agtgtcagga ggagaggcca gaccccttg atcctgatct
361 gccagccact gcatcagata agacgagata accccgagtt cctgttctac cagccctggg
421 gtgttaaccc tctcaatgg ggacggcttg gaacctgtg ccaacgaaga tctcccccg
481 tactgatgca ggaaggacag cccgggagtg taccctctac atgggtctac ttttatttaa
541 gcaaacattc cctggtcaac aggacgtgta gcattgcccc ccccttgagg tcacacagaa
601 aacagggtacc agggagacaa gtatgtgctt gccagggta cagaatgaaa ggcaataggg
661 gactctaggg gaattgttct cccacccaaa ctgaggtagt aggagaagtc cctactgaag
721 ggaaggtcca gacataatca aaggactacc agagatctcc cagggtatctg tagaagtact
781 aacatctcca tcttcaaca gctacaggtt acacgtctcc aaggctggga cattgtaaaa
841 cagggccatg gtaaggctta cccgacagca cagagcaagc ctcccagaag tctgagttcc
901 ttctcctaac ttctcatgct gggatctgag cttcttctg aaacacgggg cagaggaggc
961 accgaagctc tctctgacc aactgcccc cagcacacat atcctcaag gatagttctg
1021 aatacgtgat ggaagaatta aagagagtga ggtctgaaga aaatcagccc tctcggggtt
1081 tctttgggtt aactgagtgc taagggtgact tccgagtcag caagaaatat cggacgttca
1141 acccagggtg agtgaggaga acaattattt ctcaatccta atatgttctg gaatagccca
1201 tttatccacg tcattatgac ctgggagtg gtgaatggaa tccacagatg agggcctctg
1261 tacatagaac agctgtctgc ctcaggaaat acaactttta gtattgagaa gctaaaaaga
1321 aaaaaaaatt aaaagagagg tagcccatat taaaaatagc tgtaatgacg aagttcattc
1381 cgaccagttc tttagcgctt acaatgcaaa aaaagggaa aggaaaaaaa aaaagaaaga
1441 aattaaactc aaaaattgca tggtttagaa gagggaggag gacctgaat aacaaaaacc
1501 tttgccagga agggcccaact gagccttcag tataaaagg ggaccaagaa caggaggtct
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(2) INFORMATION FOR SEQ ID NO:2884:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15631 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2884:

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901 agattatatt atatgatggg aggggttctt ccttgggaag caattgaagc ttctattcta
961 aggtctggcca cacttgagag ctgcagggcc ctttgctatg gtgtcctttc aattgctctc
1021 attccctgagt tcagagctcc taagagagtt gtgaagaaac tcatgggtct tgggaagaga
1081 aaccagggag atcctttgat gatcattcct gcagcagctc agagggttcc cctactgtca
1141 tccccagacc gcttcatccc tgaaaactgt ggccagtttg ttatttataa ccacctaaaa
1201 ttagttctaa tagaactcat ttttaactag aagtaatgca attcctcttg gaatgggtga
1261 ttgtttgtct gcctttgtag cagcatctaa ttttgaataa atggatctta ttcg
1 cagtcaggag agagggcagt gaggttccat gctagctggg tcttgagcct cttctggggg
61 tcagtctctg atctacagca gtgtgtccac acctaaaaca tcagctcaga gaggcagttg
121 cttctgtgtg tggaaacgga catcccaaaa aaaaacaaaa aacagaaatc aaaaaggaaag
181 gagaagaatga aagggaatga ggcagcttgt ccccttccct gtgcttgctg ctggtagaaa
241 actcagcctg gaactgaccg gagcagcagt tcttgagtea attccattcc aactctaga
301 agattctttt cccgtcgaag agtgtcagga ggagaggcca gaccccttg atcctgatct
361 gccagccact gcatcagata agacgagata accccagttt cctgttctac cagccctggt
421 gtggttaacc tctccaatgg ggcaggcttg gaacctgtg ccaacgaaga tctctccccg
481 tactgatgca ggaagacag cccgggagtg taccctctac atgggtctac ttttatttaa
541 gcaaacattc cctgttcaac aggacgtgta gcattgcccc ccccttggg tcacacagaa
601 aacaggtacc aggaagacaa gtagtgtcct gccagggta cagaatgaaa ggcaatagg
661 gactctaggc gaatgttctt cccacccaaa ctgaggtagt aggagaagtc cctactgaag
721 ggaaggtcca gacataatca aaggactacc agagatctcc caggtatctg tagaagtact
781 aacatctcca tccttcaaca gctacaggtt acacgtctcc aaggctggga cattgtaaaa
841 cagggccatg gtaaggtcta cccgacagca cagagcaagc ctcccagaag tctgagttcc
901 ttctcctaac ttctcatgct gggatctgag cttcttctgt aaacacggg cagaggaggc
961 accagaactc tcctctgacc aactgcccc cagcacacat atcctcaaag gatagtcttg
1021 aatcctgat ggaagaatta aagagagtga ggtctgaaga aaatcagccc tctcggggtt
1081 tcctttgggt aactgagtgc taaggtgact tccgagtcag caagaaatat cggacgttca
1141 acccaggttg agtgaggaa acaattattt ctcaatccta atatgttctg gaatagccca
1201 tttatccagc tcattatgac ctgggagtg gtgaatggaa tccacagatg agggcctctg
1261 tacatagaac agctgtctgc ctcaggaaat acaactttta gtattgagaa gctaaaaaga
1321 aaaaaaattt aaaagagagg tagcccatat taaaaatagc tgtaatgcag aagtccattc
1381 cgaccagttc tttagcgctt acaatgcaaa aaaaagggaa agggaaaaaa aaaaagaaag
1441 aattaaactc aaaaattgca tggtttagaa gagggaggag gaggctgaat aacaaaaacc
1501 tttgccagga agggcccaact gagccttcag tataaaagg ggaccaagaa caggagggtc
1561 acatttagag acttgctctt gcaactacca agccacaagg cagccttgca gaaaagagag
1621 ctccatcatg cctggctcag cactgctatg ctgcctgctc ttactgactg gcatgaggat
1681 cagcaggggc cagtacagcc gggaagacaa taactgcacc cacttcccag tccgcccag
1741 ccacatgctc cttagagctg ggaactgcct cagccagggt aagactttct ttgtaagtat
1801 gagctcgcct agcctttctt cctgccatca cctgaaatat gcattctgat ggaactgcaa
1861 aaatagctc ccttctctc ccttctctc tccttctctt tctctctc cagctcttac
1921 tcttctctt ccttctctt ctcttctt ctcttctct cttctctct cagctcttac
1981 ctcatgctgc tcctccccta tttccagcac ctattaccct taaacttaaa tctagagagt
2041 cctagggaaa gccatgagtt aaactaaacc caggcacatc cgaaaagcta actaggaggt
2101 gaatgcattg tctctcccat gctcaagaac tttctgttaa gtttcaata aggcctcatg
2161 ttttgcctggc taggacaaaa gtctgtggtc tctgcgtagt ctctagatct gggggacaga

14725 ttccttggga agcaattgaa gcttctatct taaggctggc cacacttgag agctgcaggg
 14785 ccctttgcta tgggtgcctt tcaattgctc tcatccctga gttcagagct cctaagagag
 14845 ttgtgaagaa actcatgggt cttgggaaga gaaaccaggg agatcctttg atgatcattc
 14905 ctgcagcagc tcagagggtt cccctactgt catccccag ccgcttcac cctgaaaact
 14965 gtggccagtt tgttatttat aaccaccta aattagtctt aatagaactc atttttaact
 15025 agaagtaatg caattcctct gggaatgggt tattgtttgt ctgcctttgt agcagactct
 15085 aattttgaat aaatggatct tattcgaatt acagtgtggt gtctattgag ttctgtctga
 15145 tttaaaagaa aaatccctta aaattccaga gggcagaagc agtgaatctt agactccaca
 15205 aaaagaatgc cagcaacctc tccaggaagg ggttgagctc ggatcagatc agaggaaagt
 15265 cttgcctggc tttcaaagca tcagcataaa ctactgatat cttcaagctc agtcccttaa
 15325 aatgtgtcct gaaaccttaa aaggcattct accttccaaa gctagggaag gtgattctaa
 15385 gtaaccatcg gaaggaagt ggaagcatca aagctgaaac tctgagacga aatgttgggg
 15445 ttaaaaatgg aagctagggt caggagggtg gggagatggc tcagcagtta gagtgtgtgc
 15505 cggcaccagt gagacaggag ttcatatcct tggaaatcaa ccaacacaca accaacta
 15565 ggcaagagat gcctaagtgt tcagtgtgtg ctccaagctc cagaggtcct ggggtgaact
 15625 tagatcc

(2) INFORMATION FOR SEQ ID NO:2885:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3632 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2885:

1 aaagagctgg aggcgcgcag gccggctccg ctccggcccc ggacgatgag gcgcgccag
 61 gatgctgccg tgcctcgtag tgctgctggc ggcgctcctc agcctccgtc ttggtcaga
 121 ccgtcatggg acagagctgc ccagccctcc gtctgtgtgg ttggaagcag aatttttcca
 181 ccacatctct cactggacac ccattccaaa tcagtctgaa agtacctgct atgaagtggc
 241 gctcctgagg tatggaatag agtccctgaa ctccatctcc aactgtagcc agaccctgtc
 301 ctatgacctt accgcagtga ccttggacct gtaccacagc aatgggtacc gggccagagt
 361 gcgggctgtg gacggcagcc ggcactccaa ctggaccgtc accaacaccc gcttctctgt
 421 ggatgaagtg actctgacag ttggcagtgt gaacctagag atccacaatg gcttcactct
 481 cgggaagatt cagctaccca ggccccagat ggcccccgcg aatgacacat atgaaagcat
 541 cttcagtcac ttccgagagt atgagattgc cattcgcaag gtgccgggaa acttcacgtt
 601 cacacacaag aaagtaaaac atgaaaactt cagcctccta acctctggag aagtgggaga
 661 gttctgtgtc caggtgaaac catctgtcgc ttcccgaagt aacaagggga tgtgtcttaa
 721 agaggagtgc atctccctca ccaggcagta ttccaccgtg accaacgtca tcatcttctt
 781 tgcctttgtc ctgtgctctc ccggagccct cgcctactgc ctggccctcc agctgtatgt
 841 gcggcgccga aagaagctac ccagtgtcct gctcttcaag aagcccagcc ccttcatctt
 901 catcagccag cgtccctccc cagagaccca agacaccatc caccgccttg atgaggaggg
 961 ctttttgaag gtgtccccag agctgaagaa cttggacctg cacggcagca cagacagtgg
 1021 ctttggcagc accaagccat ccctgcagac tgaagagccc cagtttctcc tccctgacc
 1081 tcacccccag gctgacagaa cgctgggaaa cggggagccc cctgtgctgg gggacagctg
 1141 cagtagtggt agcagcaata gcacagacag cgggatctgc ctgcaggagc ccagcctgag
 1201 cccagcaca gggccacact ggggcaaca ggtggggagc aacagcaggg gccaggatga
 1261 cagtggcatt gacttagttc aaaactctga gggccgggct ggggacacac aggggtggctc
 1321 ggccttgggc caccacagtc ccccgagcc tgaggtgcct ggggaagaag acccagctgc
 1381 tgtggcattc cagggttacc tgaggcagac cagatgtgct gaagagaagg caaccaagac
 1441 aggtgtcctg gaggaagaat cgcccttgac agatggcctt gggcccaaat tcgggagatg
 1501 cctggttgat gaggcaggct tgcattccac agccctggcc aagggctatt tgaaacagga
 1561 tcctctagaa atgactcttg ctctctcagg gggcccaacg ggacagtggg accagccacg
 1621 taggaatgtg tcaactctgg ccttgagcag ctgcagtgc ctgggaatat ctgactggag
 1681 ctttggccat gaccttgcct ctctaggtct tgtggcagcc ccaggtggct tcttgggag
 1741 ctttaactca gacctggtea ccctgcccct catctctagc ctgcagtcaa gtgagtgaat
 1801 cgggctgaga ggctgctttt gatttttagc atgcctgctc ctctgcctgg accaggagga
 1861 gggccctggg gcagaagtta ggcacgaggg agtctgggca cttttctgca agtccactgg
 1921 ggctggccca gccaggtctg agggctggct aggggtgtct gggcaggagg agggcaactc
 1981 actgaactag tgcagggtat gtgggtggca ctgacctgtt ctgttgactg gggccctgca
 2041 gactctggca gactgagaa gggcagggac ctctctccctc ctaggaaactc tttcctgtat
 2101 cataaaggat tatttgcctc ggggaacctat ggggctttct ggagttgtgg tgaggccacc
 2161 aggtgaagt cagctcagac ccagacctcc ctgcttaggc cactcagca tcagagcttc
 2221 cagcaggagg aagggtgtga ggaatggaag cttcagggcc ttgctgtctg ggtcattttt
 2281 aggggaaaaa ggagatagat atggtcacat ggggaacctc ccctcatcgg gcctctgggg
 2341 caggaagcct gtactggaa gatcttaagg tatatatttt ctggacactc aaacacatca
 2401 taatggattc actgagggga gacaaaaggga gccgagacc tggatggggc ttccagctca
 2461 gaacccatcc ctctgtgtgg tacctctggc acccatctgc aaatatctcc ctctctccaa
 2521 caaatggagt agcatcccc tggggcactt gctgagggca agccactcac atcctcactt
 2581 tgctgccccca ccattctgtc gacaacttcc agagaagcca tgggtttttt tattgtgtcat

2641 aactcagccc ttggggcggc ctctgggctt gggcaccagc tcattgccagc cccagaggggt
 2701 caggggttggg ggcctgtgct tgtgtttgct gctaattgtcc agctacagac ccagaggata
 2761 agccactggg cactgggctg ggggccctgc ctgtttggtg ttcagctgtg tgatttttggg
 2821 ctageccactt gtcagagggc ctcaatctcc catctgtgaa ataaggactc caccttttagg
 2881 ggaccctcca tgtttgctgg gtattagcca agctggctct gggagaatgc agatactgtc
 2941 cgtgggactac caagctggct tgtttcttat gccagaggct aacagatcca atgggagctc
 3001 atgggtgcat gccaaagacag tatcagacac agccccagaa gggggcatta tgggcctgac
 3061 ctccccatag gccattttgga ctctgccttc aaacaaaggc agttcagtc acaggcatgg
 3121 aagctgtgag gggacaggcc tgtgcgtgcc atccagagtc atctcagccc tgcctttctc
 3181 tggagcattc tggaaaacaga tatcttgccc cagggaatcc agccatgacc cccaccctc
 3241 tgccaaagta ctcttaggtg ccagtctggt aactgaactc cctctggagc caggcttgag
 3301 ggaggattcc tcagggttcc ctgaaagct ttattttatt attttgttca tttattttt
 3361 ggagaggcag cattgcacag tgaagaatt ctggatatct caggagcccc gaaattctag
 3421 ctctgacttt gctgtttcca gtggtatgac ctgggagaag tcaattatcc tcttgagacc
 3481 tcagtttccat catctgcaga ataagtactg acttgtctaa ttcattagga tgtgaggttc
 3541 tgctgaggaa atgggtatga atgtgccttg aacacaaagg tctgtcaata agtgatacat
 3601 gttttttatt ccaataaatt gtcaagacca ca

(2) INFORMATION FOR SEQ ID NO:2886:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1696 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2886:

1 gctgtagctg gtgagaggaa gtcctagagg ctatggacac tctgctgctg ggatcaccca
 61 gatgagcagc agctgctcag ggctgagcag ggtcctggtg gccgtggcta cagccctggg
 121 gtctgctctc tccccctgcc cccaggcctg gggcccccca ggggtccagt atgggcagcc
 181 agggaggtcc gtgaagctgt gttgtcctgg agtgactgcc ggggacccag tgtcctgggt
 241 tcgggatggg gagccaaagg tgcctcaggg acctgactct gggctagggc atgaactggt
 301 cctggccccg gcagacagca ctgatgaggc cactacatc tgccagacc tggtggtgc
 361 acttgggggc acagtgaccc tgcagctggg ctaccctcca gcccgccctg ttgtctctg
 421 ccaagcagcc gactatgaga acttctcttg cacttgagt cccagccaga tcagcggttt
 481 acccaccgcg tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
 541 gaggagtcca tccacagggc cctggccatg cccacaggat cccctagggg ctgcccctg
 601 tgttgtccac ggggctgagt tctggagcca gtaccggatt aatgtgactg aggtgaaccc
 661 actgggtgac agcacacgac tgcctggatg gagcttgac agcatcttgc gccctgaccc
 721 accccagggc ctgcgggtag agtcagtacc aggttaccac cgacgcctgc gagccagctg
 781 gacataccct gcctcctggc cgtgccagcc ccacttctg ctcaagttcc gtttgcagta
 841 ccgtccggcg cagcatccag cctggtccac ggtggagcca gctggactgg aggaggtgat
 901 cacagatgct gtggctgggc tgccccatgc tgtacgagtc agtgcccggg actttctaga
 961 tctgtgcacc tggagcacct ggagcccggg ggcctgggga actccgagca ctgggacct
 1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagaggttg agcctcaggt
 1081 ggacagccct gctcctccaa gggccctccct ccaaccacac cctcggttac ttgatcacag
 1141 ggactctgtg gagcaggtag ctgtgctggc gtcttttggg atcttttctt tctgggaact
 1201 ggtggtgctg gccctggcac tggggctctg gctgaggctg agacgggggtg ggaaggatgg
 1261 atccccaaag cctgggttct tggcctcagt gattccagtg gacaggcgtc caggagctcc
 1321 aaacctgtag aggaccaggg agggcttcgg cagattccac ctataattct gtcttctggt
 1381 tgtggataga aaccaggcag gacagttagt cctatggtt ggatctcagc tggagttct
 1441 gtttgagacc catttctgtg agaccctgta tttcaaattt gcagctgaaa ggtgcttgta
 1501 cctctgattt caccacagag ttggagttct gctcaaggaa cgtgtgtaat gtgtacatct
 1561 gtgtccatgt gtgacatgt gtctgtgaag gccagggaac atgtatttct ctgcatgcat
 1621 gtatgtaggt gcctgggagt gtgtgtggtc ctgtctctgg ccctttccct tgcagggttg
 1681 tgcaggtgtg aataaa

(2) INFORMATION FOR SEQ ID NO:2887:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1682 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2887:

1 ggaagatgag cagcagctgc tcagggtcga gcagggtcct ggtggccgtg gctacagccc
 61 tgggtgtctg ctcctccccc tgccccagg cctggggccc cccagggggc cagtatggg
 121 agccaggcag gtccgtgaag ctgtgtgtgc ctggagtgc tgccggggac ccagtgtcct
 181 ggtttcgagg tggggagcca aagctgtccc agggacctga ctctgggcta gggcatgaac
 241 tggctctggc ccaggcagac agcactgatg agggcaccta catctgccag accctggatg

301 gtgcacttgg gggcacagtg accctgcagc tgggctaccc tccagcccgc cctgttgtct
361 cctgccaaagc agccgactat gagaacttct ctgacacttg gagtcccagc cagatcagcg
421 gtttaccacac ccgctacctc acctcctaca ggaagaagac agtcctagga gctgatagcc
481 agaggaggag tccatccaca gggccctggc catgcccaca ggatccccta ggggctgccc
541 gctgtgttgt ccacggggct gagttctgga gccagtaccg gattaatgtg actgagggtga
601 acccactggg tgccagcaca cgctgtctgg atgtgagctt gcagagcatc ttgcgccctg
661 acccaccacca gggcctgccc gtagagtcag taccaggtta ccccccagcg ctgcgagcca
721 gctggacata ccctgcctcc tggcctgccc agccccactt cctgctcaag ttccgttttc
781 agtaccgtcc ggccgagcat ccagcctggg ccacgggtga gccagctgga ctggaggagg
841 tgatcacaga tctgtggct gggctgcccc atgctgtacg agtcagtgc cggaactttc
901 tagatgctgg cacttgagc acctggagcc cggaggcctg ggaactccg agcactggga
961 ccataccaaa ggagatacca gcatggggcc agctacacac gcagccagag gtggagcctc
1021 aggtggacag ccctgtcctt ccaaggccct cctcccaacc acaccctcgg ctacttgatc
1081 acagggactc tgtggagcag gtagctgtgc tggcgtcttt ggaatcctt tcttctctg
1141 gactggtggc tggggccctg gcaactggggc tctggctgag gctgagacgg ggtgggaagg
1201 atggatcccc aaagcctggg ttcttggcct cagtgtatcc agtggacagg cgtccaggag
1261 ctccaaacct gtagaggacc caggagggtc tggcagatt ccacctataa ttctgtctg
1321 ctggtgtgga tagaaaccag gcaggacagt agatccctat ggttgatct cagctggaag
1381 ttctgttttg agccatttc tgtgagaccc tgtatttcaa atttgagct gaaaggtgtc
1441 tctacctctg atttcacccc agagttggag ttctgtctaa ggaactgtg taatgtgtac
1501 atctgtgtcc atgtgtgacc atgtgtctgt gaggcaggga acatgtattc tctgcagtca
1561 tgtatgtagg tgccctggga gtgtgtgtgg gtccctggct ctggccctt cctgcagggg
1621 gttgtgcagg tgtgaataaa gagaataagg aagttcttgg agattatact cagaaaaaaa
1681 aa

(2) INFORMATION FOR SEQ ID NO:2888:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 413 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2888:

1 tctgtggagc aggtagctgt gctggcgtct tggggaatcc tttctttcct gggactgggtg
61 gctggggccc tggcactggg gctctggtta gtgactgcca ttggctccctc agcctctgat
121 cctcacacat gctctgatgc ccatagacca cattcatctc cacccttcac gactgcctgc
181 tgaacctgtc tgattctgga actacctccc catacctcca tccctatgc cccacttgat
241 tttaactgat tcctctcctg accctttact aataaacctt ttggcggaga ctgagataac
301 ccacattgtt ggagagacag ctgcctttct atgcccagg ctgaggctga gacgggggtg
361 gaaggatgga tcccaaaagc ctgggttctt ggcctcagtg attccagtgg aca

(2) INFORMATION FOR SEQ ID NO:2889:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3791 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2889:

1 gctgtagctg gtgagaggaa gtcctagagg ctatggacac tctgtctctg ggatcaccca
61 gatgagcagc agctgtcag ggtgagcag ggtcctggtg gccgtggcta cagccctggt
121 gtctgcctcc tcccctgccc cccaggcctg gggcccccca ggggtccagt atgggcagcc
181 agggagggtc gtgaagctgt gttgtcctgg agtgactgcc ggggaccagc tgcctggtt
241 tcgggatggg gagccaaagc tgctccaggg acctgactct gggctagggc atgaactggt
301 cctggccccg gcagacagca ctgatgagg cactacatc tgccagaccc tggatggtgc
361 acttgggggc acagtgaccc tgcagctggg ctaccctcca gcccgccctg ttgtctcctg
421 ccaagcagcc gactatgaga acttctcttg cacttgaggt cccagccaga tcagcggttt
481 acccaccgcc tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
541 gaggagtcca tccacagggc cctggccatg cccacaggat cccctagggg ctgcccgctg
601 tgttgtccac ggggctgagt tctggagcca gtaccggatt aatgtgactg aggtgaaccc
661 actgggtgcc agcacacgcc tgetggatgt gagcttgacg agcatcttgc gccctgaccc
721 acccagggc ctgcgggtag agtcagtacc aggttaccce cgacgcctgc gagccagctg
781 gacataccct gcctcctggc cgtgccagcc ccacttctct ctcaagtctc gtttgcagta
841 ccgtccggcg cagcatccag cctggtccac ggtggagcca gctggactgg agggaggtgat
901 cacagatgct gtggctgggc tgccccatgc tgtacagtc agtgcccggg actttctaga
961 tgetggcacc tggagacact ggagcccggg ggcctgggga actccgagca ctgggacat
1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagaggtgg agcctcaggt
1081 ggacagccct gctcctccaa ggcctccct ccaaccacac cctcggctac ttgatcacag
1141 ggactctgtg gagcaggtag ctgtgctggc gtctttggga atcctttctt tctgggact
1201 ggtggtggg gccctggcac tggggctctg gctgaggctg agacgggggtg ggaaggatgg

1261 atccccaag cctgggttct tggcctcagt gattccagtg gacaggcgtc caggagctcc
1321 aaacctgtag aggaccaggg agggcctcgg cagattccac ctataattct gtcttgctgg
1381 tgtggataga aaccaggcag gacagtagat ccctatgggt ggatctcagc tggaaagtct
1441 gtttgagacc cttttctgtg agaccctgta ttccaaattt gcagctgaaa ggtgcttgta
1501 cctctgattt caccaccagag ttggagttct gctcaaggaa cgtgtgtaat gtgtacatct
1561 gtgtccatgt gtgaccatgt gtctgtgaag gccagggaac atgtattcct ctgcatgcat
1621 gtatgtaggt gcctgggagt gtgtgtggtc cttgctctgg ccctttccct tgcagggttg
1681 tgcagggtgt aataaaa
1697 ggaagatgag cagcagctgc tcagggtcga gcagggtcct ggtggccgtg gctacagccc
1757 tgggtgtctgc atccctcccc tgccccagg cctggggccc cccaggggtc cagtatgggc
1817 agccaggcag gtccgtgaag ctgtgttgtc ctggagtga ctcgggggac ccagtgtcct
1877 ggtttcggga tggggagcca aagctgtctc agggacctga ctctgggcta gggcatgaac
1937 tgggtcctggc ccaggcagac agcactgatg agggcaccta catctgccag accctggatg
1997 gtgcaacttg gggcacagt accctgcagc tgggctaccc tccagccgc cctgttgtct
2057 cctgccaagc agccgactat gagaacttct cttgcaactg gactccagc cagatcagcg
2117 gtttaccac ccgctacctc acctctaca ggaagaagac agtcctagga gctgatagcc
2177 agaggaggag tccatccaca gggccctggc catgccaca ggatcccta ggggctggcc
2237 gctgtgttgt ccacggggt gagttctgga gccagtagcg gattaatgtg actgaggtga
2297 acccactggg tgccagcaca cgcctgtctg atgtgagctt gcagagcatc ttgcgcctgt
2357 acccacccca gggcctgagg gttagctcag taccaggtta ccccgacgc ctgcgagcca
2417 gctggacata cccctgctcc tggcctgccc agccccactt cctgctcaag ttccgtttgc
2477 agtaccgtcc ggcgcagcat ccagcctggt ccacggtgga gccagctgga ctggaggagg
2537 tgatcacaga tgctgtggct gggctgcccc atgctgtacg agtcagtgcc cgggactttc
2597 tagatgtctg cacctggagc acctggagcc cggaggcctg gggaactccg agcactggga
2657 ccataccaaa ggagatacca gcatggggcc agctacacac gcagccagag gtggagcctc
2717 aggtggacag ccctgtctct ccaaggccct ccctccaacc acaccctcgg ctacttgatc
2777 acagggactc tgtggagcag gttagctgtg tggcgtcttt gggaatcctt tctttcctgg
2837 gactggtggc tggggccctg gcactggggc tctggctgag gctgagacgg ggtgggaagg
2897 atggatcccc aaagcctggg ttcttgccct cagtgtatcc agtggacagg cgtccaggag
2957 ctccaaacct gttagaggac caggagggct tggcagatt ccacctataa ttctgtcttg
3017 ctggtgtgga tagaaaccag gcagacagat agatccctat ggttggtatc cagtggaaag
3077 ttctgtttgg agccatttct tgtgagacc tgtatttcaa atttgagct gaaaggtgct
3137 tctacctctg atttaccctc agagtgtgag ttctgtctaa ggaacgtgtg taatgtgtac
3197 atctgtgtcc atgtgtgacc atgtgtctgt gaggcaggga acatgtattc tctgcatgca
3257 tgtatgtagg tgcctgggga gtgtgtgtgg gtccttggtt cttggccttt ccttgaggg
3317 gttgtgcagg tgtgaataaa gagaataagg aagttcttgg agattatact cagaaaaaaa
3377 aa
3379 tctgtggagc aggtagctgt gctggcgtct ttgggaatcc tttctttcct gggactgggt
3439 gctggggccc tggcactggg gctctggtta gtgactgcca ttgggtccctc agcctctgat
3499 cctcacacat gctctgatgc ccatagacca cattcatctc caccctcat gactgcctgc
3559 tgaacctgtc tgattctgga actacctccc catacctcca tcccctatgc cccacttgat
3619 ttttaactgat tcctctctg acctttact aataaacctt ttggcgagga ctgagataac
3679 ccacattggt ggagagacag ctgcctttct atgccccagg ctgaggctga gacggggtgg
3739 gaaggatgga tccccaagc ctgggttctt ggcctcagtg attccagtg aca

(2) INFORMATION FOR SEQ ID NO:2890:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 762 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2890:

1 atgtggcccc ctgggtcagc ctccagcca ccgcccctcac ctgcgcgggc cacaggctctg
61 catccagcgg ctgcgccctgt gtccctgcag tgccggctca gcatgtgtcc agcgcgcagc
121 ctctctccttg tggctaccct ggtcctcctg gaccacctca gtttgccag aaacctcccc
181 gtggccactc cagaccagg aatgttccca tgccttcacc actcccaaaa cctgctgagg
241 gccgtcagca acatgctcca gaaggccaga caaactctag aattttaccc ttgcaactct
301 gaagagattg atcatgaaga tatcaaaaa gataaaacca gcacagtgga ggcctgttta
361 ccattggaat taaccaagaa tgagagtgtc cttaaattcca gagagacctc ttctcataact
421 aatgggagtt gcctggcctc cagaaagacc tcttttatga tggccctgtg ccttagtagt
481 atttatgaag acttgaagat gtaccaggtg gagttcaaga ccatgaatgc aaagcttctg
541 atggatccta agaggcagat ctttctagat caaaacatgc tggcagttat tgatgagctg
601 atgcaggccc tgaatttcaa cagtgaagat gtgccacaaa aatcctccct tgaagaaccg
661 gatttttata aaactaaaaa caagctctgc atacttcttc atgctttcag aattcgggca
721 gtgactattg atagagtgt gagctatctg aatgcttct aa

(2) INFORMATION FOR SEQ ID NO:2891:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2056 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2891:

```

1 aagcttcttt tgcataactg gcgctggatt ttactgaga ctttacgtta cagttttttt
61 ttttttaatt tcaaggtgct tttacgaaca catgaataaa atatttggtg cattttgaac
121 cttacttgtc ttattttatg catgtattta tttatggggg ggcacaagga ctcactctgtg
181 gtgggtgcagc cactgtaaat aaattagtga aactacttca cgtcaatttc tgttcagtag
241 acttttagtga tggatcggag gaaattaata catgtttaca aaaagccctt ccccagttg
301 ttacatatgc ctcagagata ccagtgtgta aaagtgcagg tgcacttaca cacatacgca
361 cacacacccc acaaatggta tcatacga aaacatacct gcaatctgat ttgtccactt
421 aattgtatat cttggataca gaacttgttt cactggaagg ctaaaaggca aagtctgggg
481 aggcctagag gacacagggg atgggaggag gcgctctgag ctggatgtaa ggtctccacc
541 caggccagga gcacaaggtc ggataaccag tgggctgtgc ggcttggctg cctgggccct
601 cccctgccga gacaaacggc tggaggaggg aagtgtgcgg ctgggaagct ccgctgctct
661 ggcccggtt tcccatttcc ccttcccgcg gctgagacgg cgaggaaagt tagcccgaa
721 atctcgcccc gcctaaaacc cgccctggtc ccacaggaac tccccacc
781 gcaggggcgg aggtcgagag cagggatgga gaagtggacc tgcgcgggtg gactccgggg
841 gcgggttgga ctccggggcg cggggggact ccgaggagcg ggtgactgtt ggggcggggg
901 taccgtctcg cagcgacctc tgcggcgggc tctggggatg gcccgcatct gtctgctgt
961 acctggtata cgtgcaggta catgttctct ttcactgca gactggcggg gggatggggg
1021 ggtccacacc ggtgtacacc tttgcatacc tcttagcaac ttgaaattcc accacgagag
1081 atatctttat tccgctattc ctgtgcatct gcacggagcc cctagggcca tagatttgtg
1141 tgcaaatgaa atgagatgt agtctgggtg cccaaggggg ggtgccttga gtgtggttgt
1201 ctgtatgcct ccctgagggt atttcacttt ctgctcccat ccgcccctat gagcagtagt
1261 ctatgagcac aggatgtgca catatttgag tcttattagt ggtacacgca gttttatcat
1321 ctccccaggt ctgtgtctgt atgaaatgtg catgggtgtg tgtgtgcacg cgtgtgttcc
1381 cactcgggga atgtggggag aggtgcatgg agccaagatg ggtggtaaat agtatgttct
1441 tgaaattaaa ggactaatgt ggagggaagg gccccagatg tactaaaccc tttgcttca
1501 tctcatctct tctgacttgg gaagaaccag gattttgttt ttaagccctt gggcatacag
1561 ttgttccatc ccgacatgaa ctgagcctcc cgtctgaccc ccccttggec ttccttcttc
1621 ctgcatctgt ggaaccagg gaatctgcct agtgcgtctt ccaagcacct tggccatgat
1681 gtaaacccag agaaattagc atctccatct ccttccctat tccccacca aaagtcattt
1741 cctcttagtt cattacctgg gattttgatg tctatgttcc ctctcggtta ttgatacaca
1801 cacagagaga gacaaacaaa aaaggaactt ctgaaattc cccagaagg ttttgagagt
1861 tgttttcaat gttgcaacaa gtcagtttct agtttaagtt tccatcagaa aggagtagag
1921 tatataagtt ccagtaccag caacagcagc agaagaaaca acatctgttt cagggccatt
1981 ggactctccg tcctgcccag agcaaggtaa gcacttccca agcccctacc tccctccctt
2041 ccctgtgggc ctgacag

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(2) INFORMATION FOR SEQ ID NO:2892:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1703 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2892:

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1 gaattctcag acagcagcat tagaaggggc cttagagatc aaccatttct cttattttac
61 acacacctaa aactccctac agccgtgctt catcagcttc gagcagatga gccaccacaga
121 aggcagctcc agttattagg tcttagggcc tgggtgtagt caggcccttt ggaagctcca
181 agtcagagat caaacacatc ctcccacta cccacgccta gggtagactaa tgcctgtggg
241 aaaaaaact gaactaaaaa gtcccacagg aacctcaaac ccagcacatc caaaatggaa
301 cttctacca tctctcccaa actcagtcct cttatacagt aatccctgta aagctagaac
361 aatctccatt ccccatctct agggccttcc tctcccgctc acctgaggag ctaccaagcc
421 ttggcccaca agccctctga gagtccctcc tgcaccctt gtgttctcca tactgaataa
481 ggacttgccc acaccttgtc aactcttccc tctgtcttac tctgacccc tggatccccc
541 catcatgcaa attctgccac atctcccgcc taaaacccag gaagactccc cactactctc
601 agcacagaaa gtacactcct tagtatggca tcccctgccc tcatggcatg gcccatccag
661 cctccagccc tcacaccctg caaggacacc tagaccacca cctccctcaa ccttccatga
721 ctgcgcttct gatccctggt tcccctggct agaccctgcg tgccctcccg ctggaagcgg
781 tctaatgcct gcttgttttt aacactcagg ttggggcccc tgccctgctcc cgggagcctt
841 tgctgactcc tggaccccgt tgctcgggct gagegtgggc tctttctcta ggtctttcct
901 cccagactcc tgtgtattca tctatcggtt aaactggatt ctctacaaga gtaataattg
961 cagagtcagc cagctctcat cctttttcag gtttcagaaa agacctgtga acaaacgcc
1021 ttgagtctga tttagtgtgg caatgcccga agggctctgt tctccctggg tgtctgcac
1081 ctggtgcaac gtcggcctgg catctagtga gccatctaaa ggaacgatga tgagtgaatg

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1141 atttgctac cccttcagc actaggctgg aggtcgtggt tagggcccat ccctacgcag
 1201 gacatgcaaa gtgggaggca ctccctctctc tacgtcggca gggggcgctg cacagctgcg
 1261 gggcggggta gcttagacac gggcgctccg gctaaggccg gggaccaggg gtgggtggcg
 1321 ggggtgcccc ccgcctgtg gaccccgccg agtaactgag aacatttcgc tttcattttg
 1381 ggcgagctg gagcgggcg ggccgtcccg gaacggctgc ggcggggcac ccggggagtt
 1441 aatccgaaag cgcgcgaag ccccggggccc ggccgcaccg cacgtgtcac cgagaagctg
 1501 atgtagagag agacacagaa ggagacagaa agcaagagac cagagtcccg ggaaagtcc
 1561 gccgcgctc gggacaatta taaaaatgtg gccccctggg tcagcctccc agccaccgccc
 1621 ctacactgccc ggcggccacag gtctgcatcc agcggctcgc cctgtgtccc tgcagtgccg
 1681 gctcagcatg tgtccagcgc gca

(2) INFORMATION FOR SEQ ID NO:2893:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4521 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2893:

1 atgtggcccc ctgggtcagc ctcccagcca ccgcctccac ctgccgcggc cacaggtctg
 61 catccagcgg ctgcctctgt gtccctgcag tgccggctca gcatgtgtcc agcgcgagc
 121 ctccctcttg tggtacctt ggctcctctg gaccacctca gtttggccag aaacctcccc
 181 gtggccactc cagaccagg aatgttccca tgccctcacc actcccaaaa cctgctgagg
 241 gcgctcagca acatgctcca gaaggccaga caaactctag aattttaccc ttgcacttct
 301 gaagagattg atcatgaaga taccacaaaa gataaaacca gcacagtggg ggcctgttta
 361 ccattggaat taaccaagaa tgagagtgtc ctaaaattcca gagagacctc tttcataact
 421 aatgggagtt gcctggcctc cagaaagacc tcttttatga tggccctgtg ccttagtagt
 481 atttatgaag acttgaagat gtaccaggtg gagtccaaga ccatgaatgc aaagcttctg
 541 atggatccta agaggcagat ctttctagat caaaacatgc tggcagttat tgatgagctg
 601 atgcaggccc tgaatttcaa cagtgcagct gtgccacaaa aatcctccct tgaagaaccg
 661 gatttttata aaactaaaa caagctctgc atacttcttc atgctttcag aattcgggca
 721 gtgactattg atagagtgt gagctatctg aatgcttctc aa
 763 aagcttcttt tgcatactg gcgctggatt tttactgaga ctttacgtta cagttttttt
 823 tttttaaaat tcaaggtgct tttacgaaca catgaataaa atatttgtgt cattttgaac
 883 ctacttctgc ttattttatg catgtattta tttatggggg ggcacaaagg ctcactctgtg
 943 gtggtgcagc cactgtaaat aaattagtga aactacttca cgtcaatttc tgttcagtag
 1003 acttttagtg tggtatcgag gaaatttaata catgtttaca aaaagccccc ccccagttg
 1063 ttacatatgc ctacagagata ccagttgtga aaagtgcagg tgcacttaca cacatacgca
 1123 cacacacccc acaaatggtg tcatacgaaa aaacatacct gcaatctgat ttgtccactt
 1183 aattgtatat ctggatata gaacttggtt cactggaagg ctaaaaggca aagtctgggg
 1243 aggcctagag gacacagggg atgggaggag gcgctctgag ctggatgtaa ggtctccacc
 1303 caccggccag gcacaaggtc ggataaccag tgggcctgcc ggcttgctg cctgggccc
 1363 cccctgccga gacaaacggc tggagggagg aagtgtgcgg ctgggaagct ccgctgctct
 1423 ggcggggtt tccatttccc cccttcccgc gctgagacgg cgaggaaagt tagcccgga
 1483 atctgcgccc gcctaaaacc cggcctggtc ccagccaccg cccaggaac ttccccacc
 1543 cgagggggcg aggtcgagag cagggatgga gaagtggacc tgcgcggtg gactccggg
 1603 gcggggtgga ctccggggcg cggggggact ccgaggagcg ggtggactgt ggggcgggg
 1663 taccgtctcg cagcgacctc tgcggcgcc tctggggatg gcccgcatct gtctgcgtgt
 1723 acctggtata cgtgcaggta catgttctct ttcacgtgca gactggcgcg gggatggggg
 1783 ggtccacacc ggtgtacacc tttgcatacc tcttagcaac ttgaaattcc accacgagag
 1843 atatctttat tccgctatcc ctgtgcattc gcacggagcc cctagggcca tagatttgtg
 1903 tgcaaatgaa atgaggatgt agtctgggtg cccaaggggg ggtgccttga gtgtggttgt
 1963 ctgtatgcct ccctgagggt atttactttt ctgctcccat ccgcccctat gagegagtag
 2023 ctatgagcac aggatgtgca catatttgag tcttattagt ggtacacgca gttttatcat
 2083 ctccccaggt ctgtgtctgt atgaaatgtg catgggtgtg tgtgtgcacg cgtgtgttcc
 2143 cactcgggga atgtggggag aggtgcatgg agccaagatg ggtggtaaat agtatgttcc
 2203 tgaattataa ggactaatgt ggaggaaagg gccccagatg tactaaaccc tttgccttca
 2263 tctcatctcc tctgacttgg gaagaaccag gattttgttt ttaagccctt gggcatacag
 2323 ttgttccatc ccgacatgaa ctacagcctcc cgtctgaccc ccccttgccc ttccttcttc
 2383 ctgatctgtt ggaaccaggg gaatctgcct agtgctgtct ccaagcacct tggccatgat
 2443 gtaaacccag agaaattagc atctccatct ccttcttat tccccacca aaagtcatct
 2503 cctcttagtt cattacctgg gattttgatg tctatgttcc ctctcggtta ttgatacaca
 2563 cacagagaga gacaaacaaa aaaggaactt cttgaaattc cccagaaagg ttttgagagt
 2623 tgttttcaat gttgcaacaa gtcagtttct agtttaagtt tccatcagaa aggagtagag

2683 tatataagtt ccagtaccag caacagcagc agaagaaaca acatctgttt cagggccatt
 2743 ggactctccg tccgtgccag agcaaggtaa gcacttccca agccccctacc tccctccctt
 2803 cccgtgtggc ctgcag
 2819 gaattctcag acagcagcat tagaaggggc cttagagatc aaccatttct cttattttac
 2879 acacaccta aactccctac agcgtgctt catcagcttc gagcagatga gccaccacaga
 2939 aggcagctcc agttattagg tccctaggcc tgggtgtagt cagggccctt ggagctcca
 2999 agtcagagat caaacacatc ctccccacta cccacgccta gggtgactaa tgcctgtggg
 3059 aaaaacaact gaactaaaaa gtccacacag aacctcaaac ccagcacatc caaaatggaa
 3119 ctctccacca tctcctccaa actcagctct cttatacagt aatccctgta aagctagaac
 3179 aatctccatt cccctattct agggccttcc tctcccgctc acctgaggag ctaccaagcc
 3239 ttggcccaaca agccctctga gagtccctcc tgcacccct gtgttctcca tactgaataa
 3299 ggacttgcc acacctgtc aactcttccc tctgtctac tccctgaccc tggatcccc
 3359 catcatgcaa attctgccac atctcccgcc taaaaccag gaagactccc cactactctc
 3419 agcacagaaa gtacactcct tagtatggca tccccctgcc tcatggcatg gcccatccag
 3479 cctccagcc tcacaccctg caaggacacc tagaccccca cctccctcaa ccttcatga
 3539 ctgcgcttct gatccctgtt tccccctggc agaccctgcg tgcctcccg ctggaagcgg
 3599 tctaattgct gctgttttt aacactcagg ttggggcccc tgcctgtctc cgggagcctt
 3659 tgcgtactcc tggaccccg tgcctccgct gagcgtgggc tcttctctta ggtcttctc
 3719 cccaggactc tgtgtattca tccctatcgt aaactggatt ctctacaaga gtaataattg
 3779 cagagtccag cagctctcat ccttttccag gtttcagaaa agacctgtga aaaaaacgcc
 3839 ttgagtctga tttagtgtg caatgcccc agggctctgt tctccctggg tgcctgtcac
 3899 ctgggtgcaac gtccgctgg catctagtga gccatctaaa ggaacgatga tgagtgaatg
 3959 atttgctac cccttccagt actaggctgg aggtcgtgg tagggcccat cctacgcag
 4019 gacatgcaaa gtgggagga ctctctctc tacgtcggca gggggcgctg cacagctgcg
 4079 gggcggggta gcttagacac gggcgctccg gctaaggccg gggacccagg gtggtggcg
 4139 ggggtgtccc ccgcctgtg gaccccgcg agtaactgcg aacatttcgc tttcatttg
 4199 ggcgagctg gagcgcgcg ggcgtcccg gaacggctgc ggcggggcac cccgggagtt
 4259 aatccgaaag cgcgcgaag ccccggggccc ggcgcaccg cacgtgtcac cgagaagctg
 4319 atgtagagag agacacagaa ggagacagaa agcaagagac cagagtcccg ggaagtctt
 4379 gccgcgctc gggacaatta taaaaatgt gccccctggg tcagcctccc agccaccgcc
 4439 ctacactgcc gcggccacag gtctgcatcc agcggctcgc cctgtgtccc tgagtgcgcg
 4499 gctcagcatg tgtccagcgc gca

(2) INFORMATION FOR SEQ ID NO:2894:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1742 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2894:

1 caagcccaga gccctgccat tctgtgggc tcaggctccct actgtctcagc cccttccctcc
 61 ctccgcaagg ccacaatgaa ccggggagtc ccttttaggc acttgcctt ggtgctgcaa
 121 ctggcgctcc tcccagcagc cactcagga aagaaagtgg tgcctgggcaa aaaaggggat
 181 acagtgaac tgacctgtac agcttccag aagaagagca tacaattcca ctggaaaaac
 241 tccaaccaga taaagattct gggaaatcag ggctccttct taactaaagg tccatccaag
 301 ctgaatgat gcgctgactc aagaagaagc ctttgggacc aaggaaactt cccctgac
 361 atcaagaatc ttaagataga agactcagat acttacatct gtgaagtga ggaccagaag
 421 gaggaggtgc aattgctagt gttcggattg actgccact ctgacacca cctgcttcag
 481 ggcagagcc tgacctgac cttggagagc cccctggta gtacccctc agtgcaatgt
 541 aggagtccaa ggggtaaaaa catacagggg gggaagacc tctccgtgtc tcagctggag
 601 ctccaggata gtggcacctg gacatgcact gtcttgaga accagaagaa ggtggagtcc
 661 aaaatagaca tgcgtgtgct agctttccag aaggcctcca gcatagtcta taagaaagag
 721 ggggaacagg tggagttctc ctccactc gcctttacag ttgaaaagct gacgggcagt
 781 ggcgagctgt ggtggcaggc ggagagggtc tctcctcca agtcttggat cacctttgac
 841 ctgaagaaca aggaagtgtc tgtaaaacgg gttaccagg accctaagct ccagatgggc
 901 aagaagctcc cgtccacct caccctgcc caggcctgc ctcagtatgc tggctctgga
 961 aacctcacc tggcccttga agcgaaaaa ggaaagtgtc atcaggaaat gaacctggtg
 1021 gtgatgagag cactcagct ccagaaaaa ttgacctgtg aggtgtggg acccacctcc
 1081 cctaagctga tgcctgagct gaaactggag aacaaggagg caaaggctc gaagcgggag
 1141 aagcggtgt ggtgtctgaa cctgagcgc gggatgtggc agtgtctgct gactgactcg
 1201 ggacaggtcc tgcctggaat caacatcaag gttctgccc catggtccac cccggtgcag
 1261 ccaatggccc tgattgtgct gggggcgct gccggcctcc tgcctttcat tgggctaggg
 1321 atcttctct tgcgtcaggt gcggcaccga aggcgccaag cagagcgat gtctcagatc
 1381 aagagactcc ctagtgaag gaagacctgc cagtgcctc accggtttca gaagacatgt
 1441 agccccattt gaggcacgag gccaggcaga tccacttgc agcctcccca ggtgtctgcc

1501 ccgcgtttcc tgcctgcgga ccagatgaat gtagcagatc ccacgctctg gcctcctggt
 1561 cgtcctccct acaatttgc attgtttctc ctgggttagg ccccggttc actggttgag
 1621 tgttgcctc tagttccag aggttaatc acaccgtcct ccacgccatt tccttttctc
 1681 tcaagcctag cccttctctc attatttctc tctgacctc tccccactgc tcatttgat
 1741 cc

(2) INFORMATION FOR SEQ ID NO:2895:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 237 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2895:

1 ctgccaaactc tgacacccac ctgcttcagg ggcagagcct gacctgacc ttggagagcc
 61 cccctggtag tagccctca gtcaatgta ggagtccaag gggtaaaaac atacaggggg
 121 ggaagaccct ctccgtgtct cagctggagc tccaggatag tggcacctgg acatgcactg
 181 ttttgcagaa ccagaagaag gtggagttca aaatagacat cgtgggtgcta gctttcc

(2) INFORMATION FOR SEQ ID NO:2896:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4040 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2896:

1 tgcagagaac agagaaagga catctgcgag gaaagttccc tgatggctgt caacaaagtg
 61 ccacgtctct atggctgtgt acgctgagca cacgatttta tcgcgcctat catatcttgg
 121 tgcataaacg cactcacct cggtaaccc ttgctccgtc ttatgagaca ggctttatta
 181 tccgcatttt atatgagggg aatctgacgg ttgagagaga attatcttgc tcaaggcgac
 241 acagcagagc ccacaggtgg cagaatccca cccgagcccg ctctgacccg cgggggtggaa
 301 accacggggc cccgcccggc tgcgcttcca gagctgaact gagaagcgag tctctccgc
 361 cctgcggcca ccgcccagcc ccgacccccg ccccggcccg atcctcactc gccgccagct
 421 ccccgccccc accccggagt tgggtggcga gagcggggag gcggaggcgg gagggcgggc
 481 gctggcaccg ggaacgccc agcgccggca gagagcgcg agagcgcgac acgtgcccgc
 541 cagagcaccc ggcccacccg gtcccgcgag gcccgggacc gcgcccgcgt gcaggcgaca
 601 cgtggaagaa tacggagtte tataccagag ttgattgttg atggcacata ctttttagagg
 661 atgctcattg gcatattatg ttataatcac gtggctgttg attaaagcaa aaatagatgc
 721 gtgcaagaga ggcgatgtga ctgtgaagcc ttccatgta attttacttg gatccactgt
 781 caatattaca tgctctttga agcccagaca aggctgcttt cactattcca gacgtaacaa
 841 gttaatcctg tacaagtttg acagaagaat caattttcac catggccact cctcaattc
 901 tcaagtcaaa ggtcttcccc ttggtacaac ctgtgtttgc tgcaaatgg cctgtatcaa
 961 tagtgatgaa attcaaatat gtggagcaga gatcttcgtt ggtgttgctc cagaacagcc
 1021 tcaaaattta tcctgcatac agaagggaga acaggggact gtggcctgca cctgggaaag
 1081 aggacgagac acccacttat aactgagta tactctacag ctaagtggac caaaaaattt
 1141 aacctggcag aagcaatgta aagacattta ttgtgactat ttggacttgg gaatcaacct
 1201 cacccttgaa tcacctgaat ccaatttcac agccaagggt actgctgtca atagtcttgg
 1261 aagctcctct tcaactccat ccacattcac attcttgtag atagtagggc ctctctctcc
 1321 gtgggacatt agaatacaat ttcaaaagcc ttccgtgagc agatgtaccc tttattggag
 1381 agatgaggga ctggtactgc ttaatcgact cagatatcgg ccagtaaca gcaggctctg
 1441 gaatatggtt aatgttacaa aggccaaagg aagacatgat ttgctggatc tgaaccatt
 1501 tacagaatat gaatttcaga ttctctctaa gctacatctt tataagggaa gttggagtga
 1561 ttggagttaa tcattgagag cacaacacc agaagaagag cctactggga tgtagatgt
 1621 ctggtacatg aaacggcaca ttgactacag tagacaacag atttctcttt tctggaagaa
 1681 tctgagtgtc tcagaggcaa gaggaataat tctccactat caggtagact tgcaggagct
 1741 gacaggaggg aaagccatga cacagaacat cacaggacac acctcctgga ccacagtcct
 1801 tctagaaccc ggaaattggg ctgtggctgt gtctgcagca aattcaaaag gcagttctct
 1861 gccactcgt attaacataa tgaacctgtg tgaggcaggg ttgctggctc ctgccagggt
 1921 ctctgcaaac tcagagggca tggacaacat tctggtgact tggcagcctc ccaggaaaga
 1981 tccctctgct gttcaggagt acgtgggtga atggagagag ctccatccag ggggtgacac
 2041 acaggtccct ctaactggc tacggagtgc accctacaat gtgtctgtc tgatttcaga
 2101 gaacataaaa tcctacatct gttatgaaat ccgtgtgtat gcactctcag gggatcaagg
 2161 aggatgcagc tccatcctgg gtaactctaa gcacaaagca ccaactgagt gcccccacat
 2221 taatgccatc acagaggaaa aggggagcat tttaatttca tggaaacgca ttccagtcca
 2281 ggagcaaatg gctgcctcc tccattatag gatatactgg aaggaacggg actccaactc
 2341 ccagcctcag ctctgtgaaa ttccctacag agtctcccaa aattcacatc caataaacag
 2401 cctgcagccc cgagtgcact atgtcctgtg gatgacagct ctgacagctg ctggtgaaag
 2461 ttcccacgga aatgagaggg aattttgtct gcaaggtaaa gccaatggga tggcgtttgt

2521 ggcaccaagc atttgcatg ctatcatcat ggtgggcatt ttctcaacgc attacttcca
 2581 gcaaaagggtg tttgttctcc tagcagccct cagacctcag tgggtgtagca gagaaattcc
 2641 agatccagca aatagcactt gcgctaagaa atatccatt gcagaggaga agacacagct
 2701 gcccttgagc aggtctctga tagactggcc cagcctgaa gatcctgaac cgctggatcat
 2761 cagtgaagtc cttcatcaag tgacccagct tttcagacat ccccccctgct ccaactggcc
 2821 acaaagggaa aaaggaatcc aaggtcatca ggcctctgag aaagacatga tgcacagtgc
 2881 ctcaagccca ccacctccaa gagctctcca agctgagagc agacaactgg tggatctgta
 2941 caaggtgctg gagagcagg gctccgaccc aaagccagaa aaccagcct gtcctggac
 3001 ggtgctccca gcaggtagc tccccacca tgatggctac ttacctcca acatagatga
 3061 cctcccctca catgaggcac ctctcgctga ctctctgaa gaactggagc ctcagcacat
 3121 ctccccttct gttttccct caagtctct tcaccactc accttctct gtggtgataa
 3181 gctgactctg gatcagttaa agatgagggtg tgactccctc atgctctgag tggtagaggct
 3241 tcaagcctta aagtcagtgt gccctcaacc agcacagcct gcccattc cccagcccc
 3301 tgctccagca gctgtcatct ctgggtgcca ccatcggtct ggctgcagct agaggacagg
 3361 caagccagct ctgggggagt cttaggaact gggagttggt cttactcag atgctcatc
 3421 ttgcctttcc cagggcctta aaattacatc cttactgtg tggacctaga gactccaact
 3481 tgaattccta gtaactttct tggtagctg gccagaaagg gaaatgagga ggagagtga
 3541 aaccacagct cttagtagta atggcataca gtctagagga ccattcatgc aatgactatt
 3601 tctaaagcac ctgtacaca gcaggctgta cacagcagat cagtactgtt caacagaact
 3661 tctgtgagat atggaatgt tctacctctg cactcactgt ccagtacatt agacactagg
 3721 cacattggct gttaatcact tggaaatgt ttagcttgac tgaggaatta aattttgatt
 3781 gtaaatthaa atcgccacac atggctagt gctactgtat tggagtgcac agctctagat
 3841 ggctcctaga ttattgagag cctccaaaac aaatcaacct agttctatag atgaagacat
 3901 aaaagacact ggtaaacacc aatgtaaaag ggccecaag gtggtcatga ctggtctcat
 3961 ttgcagaagt ctaagaatgt accttttct ggccggcggt ggtagctcat gcctgtaac
 4021 ccagcacttt gggaggctga

(2) INFORMATION FOR SEQ ID NO:2897:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6019 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2897:

1 caagcccaga gccctgccat ttctgtgggc tcaggctccct actgctcagc cccttctctc
 61 ctgcggcaagg ccacaatgaa ccggggagtc ccttttaggc acttgttctt ggtgctgcaa
 121 ctggcgctcc tcccagcagc cactcaggga aagaaagtgg tgctgggcaa aaaaggggat
 181 acagtggaaac tgacctgtac agcttcccag aagaagagca tacaattcca ctggaaaaac
 241 tccaaccaga taaagattct gggaaatcag ggctccttct taactaaagg tccatccaag
 301 ctgaatgac gcgctgactc aagaagaagc ctttgggacc aaggaaactt cccctgac
 361 atcaagaatc ttaagataga agactcagat acttacatct gtgaagtgga ggaccagaag
 421 gaggagggtgc aattgctagt gttcgattg actgccaact ctgacacca cctgcttcag
 481 gggcagagcc tgacctgac cttggagagc ccccttggtg tagccctc agtgcaatgt
 541 agggatccaa ggggtaaaaa catacagggg ggaagacc tctcgtgtc tcagctggag
 601 ctccaggata gtggcacctg gacatgcact gtcttgaca accagaagaa ggtggagttc
 661 aaaatagaca tcgtgtgtct agctttccag aaggcctcca gcatagtcta taagaagag
 721 ggggaacagg tggagttctc cttccactc gcctttacag ttgaaaagct gacgggcagt
 781 ggcgagctgt ggtgagcagg ggagagggtc tctcctcca agtcttgat cacctttgac
 841 ctgaagaaca aggaagtgtc tgtaaaacgg gttaccagg accctaagct ccagatgggc
 901 aagaagctcc cgctccacct caccctgccc caggccttgc ctcagtatgc tggctctgga
 961 aacctcacc tggcccttga agcgaaaaca ggaaggttgc atcaggaagt gaacctgggtg
 1021 gtgatgagag ccactcagct ccagaaaaat ttgacctgtg aggtgtgggg acccacctcc
 1081 cctaagctga tgcctgactt gaaactggag aacaaggagg caaaggctctc gaagcgggag
 1141 aaggcggtgt ggtgtgtgaa cctgaggcg gggatgtggc agtgtctgct gactgactcg
 1201 ggacaggtcc tgctggaatc caacatcaag gttctgccca catggtccac cccggtgcag
 1261 ccaatggccc tgattgtgct ggggggcgtc gccggcctcc tgcttttcat tgggctaggc
 1321 atcttcttct gtgtcaggtg ccggcaccga aggcgccaag cagagcggat gtctcagatc
 1381 aagagactcc tcagtgaaga gaagacctgc cagtgcctc accggtttca gaagacatgt
 1441 agccccattt gaggcacgag gccaggcaga tcccacttgc agcctcccca ggtgtctgac
 1501 ccgctgttcc tgctgtcgga ccagatgaat gtacagatc ccacgctctg gcctcctggt
 1561 cgtcctccct acaatttgc attgtttctc ctgggttagg ccccgcttc actggttgag
 1621 tgtgtctctc tagtttccag aggttaatc acaccgtct ccacgccatt tcttttctc
 1681 tcaagcctag cccttctctc attatttctc tctgacctc tcccactgc tcatttggat
 1741 cc
 1 ctgccaactc tgaccccac ctgcttcagg ggcagagcct gaccctgacc ttggagagcc
 61 cccctggtag tagccctca gtgcaatgta ggagtccaag gggtaaaaac atacagggg
 121 ggaagacctc ctccgtgtct cagctggagc tccaggatag tggcacctgg acatgcactg
 181 ttttgacaga ccagaagaag gtggagttca aaatagacat cgtggtgcta gctttcc

1 tgcagagaac agagaaagga catctgag gaaagtccc tgatggctgt caacaaagtg
61 ccacgtctct atggctgtgt acgtgagca cagatttta tgcgcctat catatcttgg
121 tgcataaacg cactcactt cggtaaccc ttgctccgtc ttatgagaca ggctttatta
181 tccgcatttt atatgagggg aatctgacgg tgagagagaga attatcttgc tcaaggcgac
241 acagcagagc ccacaggtgg cagaatccca cccgagccc cttcgaccg cggggtggaa
301 accacggggc cccgcccggc tgcgttcca gagctgaact gagaagcgag tccctctccg
361 cctgcccga cccgcccagg cggacccccc ccccgcccg atctcactc gccgccagct
421 ccccgccccc accccggagt tgggtggcga gaggggggag gcggaggcgg gagggcgggc
481 gctggcaccg ggaacgccc agcgccggca gagagcgcg agagcgcgac acgtgcccgc
541 cagagcaccg gggccaccg gtccccgag gcccgggacc gcgcccgtg gcaggcgaca
601 cgtggaagaa tacggagtgc tataccagag ttgattgttg atggcacata ctttttagagg
661 atgctcattg gcatttatgt ttataatcac gtggctgttg attaaagcaa aaatagatgc
721 tgcgaagaga ggcgatgtga ctgtgaagcc ttcccatgta attttacttg gatccactgt
781 caatattaca tgctcttga agcccagaca aggctgcttt cactattcca gacgtaacaa
841 gttaatcctg tacaagtttg acagaagaat caattttcac catggccact ccctcaattc
901 tcaagtccag agtcttcccc ttggtacaac ctgtttgttc tgcaaaactgg cctgtatcaa
961 tagtgatgaa attcaaatat gtggagcaga gatcttctgt ggtgttgctc cagaacagcc
1021 tcaaaattta tctgcatac agaagggaga acaggggact gtggcctgca cctgggaaag
1081 aggacgagac acccacttat aacttgagta tactctacag ctaagtggac caaaaaattt
1141 aacctggcag aagcaatgta aagacattta ttgtgactat ttggactttg gaatcaacct
1201 caccctgaa tcacctgaat ccaatttcac agccaaggtt actgctgtca atagtcttgg
1261 aagctcctct tcaacttcat ccacattcac attcttggac atagtggagc ctctctctcc
1321 gtgggacatt agaattcaat ttcaaaaggc ttccgtgagc agatgtaccc ttattggag
1381 agatgagggg ctggtactgc ttaatcgact cagatatcgg ccagtaaca gcaggctctg
1441 gaatatggtt aatgtttaca aggccaagg aagacatgat ttgctggatc tgaaccatt
1501 tacagaatat gaatttcaga ttctcttaa gctacatctt tataaggaa gttggagtga
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1621 ctggtacatg aaacggcaca ttgactacag tagacaacag atttctcttt tctggaagaa
1681 tctgagtgtc tcagaggcaa gaggaanaat tctccactat caggtgacct tgcaggagct
1741 gacaggagg aaagccatga cacagaacat cacaggacac acctcctgga ccacagtcat
1801 tctagaaccc ggaattggg ctgtggctgt gtctgcagca aattcaaaag gcagttctct
1861 gccactcgt attaacataa tgaacctgtg tgaggcaggg ttgctggctc ctgccagggt
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2041 acaggtccct ctaaaactggc tacggagtgc accctacaat gtgtctgctc tgatttcaga
2101 gaacataaaa tctacatct gttatgaaat ccgtgtgtat gcaactctag gggatcaagg
2161 aggatgcagc tccatctctg gtaactctaa gcacaaagca ccaactgagt gccccacat
2221 taatgccatc acagaggaaa aggggagcat tttaatttca tggaaacagca tccagtcca
2281 ggagcaaatg ggctgcctcc tccattatag gatatactgg aaggaaacgg actccaactc
2341 ccagcctcag ctctgtgaaa ttccctacag agtctcccaa aattcacatc caataaacag
2401 cctgcagccc cagtgacat atgtctgtg gatgacagct ctgacagctg ctggtgaaag
2461 ttcccacgga aatgagaggg aattttgtct gcaaggtaaa gccaatgga tggcgtttgt
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2581 gcaaaaaggtg tttgttctcc tagcagccct cagacctcag ttggtgtaga gagaaattcc
4620 agatccagca aatagcactt gcgctaagaa atatccatt gcagaggaga agacacagct
4680 gcccttgagc aggtctctga tagactggcc cagcctgaa gatcctgaac cgctggtcat
4740 cagtgaagtc ctctcatcaag tgacccaggt ttccagacat ccccccgtct ccaactggcc
4800 acaaagggaa aaaggaatcc aaggtcatca ggcctctgag aaagacatga tgcacagtgc
4860 ctcaagccca ccacctcaa gagctctcca agctgagagc agacaactgg tggatctgta
4920 caaggtgctg gagagcaggg gctccgacc aaagccagaa aaccagcct gtccctggac
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5160 gctgactctg gatcagttaa agatgaggtg tgactccctc atgctctgag tggtagggct
5220 tcaagcetta aagtcagtgt gccctcaacc agcacagcct gcccattc cccagcccc
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5340 caagccagct ctgggggagt cttaggaact gggagtgggt ctctactcag atgcctcatc
5400 ttgcctttcc cagggcctta aaattacatc ctctactgtg tggacctaga gactccaact
5460 tgaattccta gtaactttct tggtagctg gccagaaagg gaaatgagga ggagagtaga
5520 aaccacagct cttagtagta atggcataca gtctagagga ccattcatgc aatgactatt
5580 tctaaagcac ctgtacaca gcaggctgta cacagcagat cagtactgtt caacagaact
5640 tccatgagat atggaaatgt tctacctgt cactactgtt ccagtacatt agacactagg
5700 caattggct gtaatcact ttgaatgtgt ttagcttgac tgaggaaatta aattttgatt
5760 gtaaatttta atcgccacac atggctagt gctactgtat tggagtgcac agctctagat
5820 ggctccctaga ttattgagag cctccaaaac aaatcaacct agttctatag atgaagacat
5880 aaaagacact ggtaaacacc aatgtaaaag ggccecaag gtggtcatga ctggtctcat
5940 ttgcagaagt ctaagaatgt accttttctt ggcgggctg ggtagctcat gcctgtaatc
6000 ccagcacttt gggaggctga

(2) INFORMATION FOR SEQ ID NO:2898:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5670 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2898:

```
1 ggatccccgc tgacaatcta gaaacaagca acagaccctc tgatgtagcc atctgtgccc
61 cgccctctccg caccgcccgc cagccttggt tccctggaga ccaccctcca gggcaggggc
121 tgcgcgtcgg ccggggcccgc ggggtccctc ggccctgacat ggccggtgct ggagcggcac
181 gtgcgcgcct cgcccctcgc gccgctcccg cccctcgccg gtgcgcaccg gcgctcgggg
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361 cctcccggac cggccaccgc cggaggccgc ggaggagggc ccggccgcgc agatcccgcg
421 tatcggggcc catctcccgt tacataagcc caccccccta tctccgcggg ccatcgccgc
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541 gcagggtctt tgggtggcat gggggataag gggcggtgac tcaccggggc ggggctccgg
601 gagttgcaca gaccaaggta gttccccgct ccttccccca tcacggagac cctgtgggag
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721 gtacgggcac tccaggcact gggggccctc gaggaagggg gcagacttct gggagtccga
781 gccagcagct gggctgggaa gcttcgagtg tggacagaga ggggtgggaa gacgttccct
841 gtgggaagag aggggtggga agcctgggat gcctctgagc ggggaatccag catgccttgt
901 gaggaggggc acaagcacac ccttgtgagg aggttgagcc ccatcgagga caggacggag
961 ggagcctgag caggcagaga gggggcctgg ggaggcgtg gttcggggag gaagtgggta
1021 ggggagaaat cttgacatca acacccaaca ggcaaatgcc gtggcctctg cttgtggggg
1081 ttctggagga cttctaggaa aacgagggaa gacgaggaaa aggcgacatg gctgtagggc
1141 caagcccagg agccgcctc cagcagctc attctgcaga agggaaattt gaggccccc
1201 gacggcaggg gttgatcctg cagagactgg tgagcaagg ggatcacccc aagcccaggt
1261 ggcactagga acacttaca tctctgacct ggactaaggc tgccagcctg gccagttaa
1321 gaqgtttcca gaaggatggc ccatacactt taaattaaag gggccagaca cgtgcacct
1381 acttccagcc actctggaag ctgaggtggg gggatcgctt gactctggga gttggaggcc
1441 agcctagggc ggcaacatag tgagacccca tctccaaaaa aacaaaaaaa aacaaaaaaa
1501 aaaaacacca aaaaagctcc cagaaagacc tctgaattct tctgatatc tcagtggaga
1561 cctggaaatc tgaactttga caatccctct cacagtggg ccaaggagga attaggcaag
1621 ccaaaagag tgaactttac tcttctattg cctgtttgaa ttttgtatcc aagcaagtgt
1681 tacttaagta atttaagaga ctggttcacg gaaaaataa aactcccca attcccatag
1741 ctggtagact gtggtcacag ccacagtgca ctaagactat ctgctcagca cttctggtga
1801 cccaaaaggg tctgaggaca ggagctcaga gttgggtcag ctgtccagggt actcagggtt
1861 gtcacaggca aaactgctgg aactcagggc agcattgcaa atgccacgcc gctctcaggg
1921 ccccttgctt gccgctggaa ttaaaccac ccagatcttg gaaactctgc cctggacctt
1981 tctcaataag tccatgagaa atcaaaactt ttcctttatg cgacactgga ttttccaaa
2041 agtaaaatca agatgagtaa agatgtggtt tctagatagt gcctgaaaaa gcagagacca
2101 tgggtgtcagg cgtcaccact tgggcttata aaagctgcca caagacgcca agggccacaag
2161 ccacccagcc tatgcatccg ctccctcaatc ctctcctggt ggcactgggc ctcatggcgc
2221 ttttgttgac caggttcatt gctctcactt gccttggcgg ctttgctctc ccaggccctg
2281 tgccctcctc tacagccctc agggagctca ttgaggagct ggtcaacatc acccagaacc
2341 agaaggtgag tgtcggctag ccagggtcct agctatgagg gctccagggt ggggtgattc
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2461 ctccatggac caaggcccg cccagccatg agggagagag gagctgggct ggggggctca
2521 gcactgtgga tggacctatg gaggtgtctg cgagactccc cagggaactac ctgctctcct
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2641 gagaagggcc agcaccctcc cagaaccatg tggcatttgc caactggatt ttgaccataa
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2941 gcctggccaa caccagagtg tccatgctcc taactgcagt gttccctcac catcagaagg
3001 cagggcattt aatacaccag atccccaccg cctcccatct gatttgtctt ggtcaacagt
3061 ggcccaggcc actcctactt cactcgtccc caccctggcc cttcccgcag gccctgtcc
3121 tcctgccttg actatggcaa gccttgcatg cagcttgtcc cttactagtg gtgtcaattt
3181 ttttctctca gctccaagac cctaaacagt gggacctcac ccctatgcct gctgttcaaa
3241 gcagaaaacg aagctcagga atgctgaggg gctgccaggc ctgctctgtg gccacaccag
3301 ggatgcttgt cgggctgtg ctgggctgga cctggcctgg ctgcccaggg caggccaca
3361 acccctgcca gcactctgct cactgtcact ttgctccac aggcctcgct ctgcaatggc
3421 agcatgggat ggagcatcaa cctgacagct ggcatggtaa ggacctttg gtgcaggagg
3481 gatggggcag aggcctcagg ccttgggctt atcttctctg agcctccctt ccatggcttg
3541 ggttccaagc aagcttcaag tgctctcctc cctcccgcca taatctggcc ccttcccgcc
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3601 caccacccag actcacctgc gccaggcatc tcagcccat cttcctgcag actcacaana
3661 ggcagctgcc caagcagggc ctgaccctc ggtgtccct cccacagta ctgtgcagcc
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3781 agcggattct gcccgcacaa ggtctcagct ggggtaaggc atccccacc ctctcacacc
3841 caccctgcac cccctcctgc caaccctggg ctgctgaag ggaagctggc tgaatatcca
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4081 tccctggaaa gccctcgtt tgtgcgagtc gtcccgccct ctggcgctct actcacgtgc
4141 tgacctcttt gtcctgcagc agttttccag ctgtcatgtc cgagacacca aaatcgagggt
4201 ggcccagttt gtaaaaggacc tgctcttaca tttaaagaaa ctttttcgag agggacggtt
4261 caactgaaac ttcgaaaagca tcattatttg cagagacagg acctgactat tgaagtgcga
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4801 tccctggtaa taagtactgt gtacagaatt ctgctacctc actggggtcc tggggcctcg
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5401 cctgaggact ggccagctgt gtctggcacc acccacacat ccatgtctcc ctcacaaccc
5461 agggagccga tgagaactgt gaggctcaga aagcgtgggc ggtttgccta aggtcacgta
5521 gctacttctt cactggggtc ctggggcctc agagcctcat ctgaggtaaa ggagcaaggt
5581 tgggattggg gtccaaaatt cactttaact ccaaagccca cacacttaac caccctgcct
5641 atttctgtcc aaatgtcacc tgtcctgaat

(2) INFORMATION FOR SEQ ID NO:2899:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1282 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2899:

1 aagccaccca gctatgcat ccgctctcca atcctctcct gttggcactg ggcctcatgg
61 cgcttttgtt gaccacggtc attgctctca cttgccttgg cggtcttgcc tcccaggcc
121 ctgtgctctc ctctacagcc ctcaggagc tcattgagga gctggtcaac atcaccagga
181 accagaaggc tccgctctgc aatggcagca tggatggag catcaacctg acagctggca
241 tgtactgtgc agccctggaa tccctgatca acgtgtcagg ctgcagtgcc atcgagaaga
301 cccagaggat gctgagcgga ttctgccgc acaaggctct agctgggcag tttccagct
361 tgcattgtcc agacaccaa atcagagtg cccagtttgt aaaggacctg ctcttacatt
421 taaagaaact ttttcgcgag ggacggttca actgaaactt cgaaagcatc attatttgca
481 gagacaggac ctgactattg aagttgcaga ttcatttttc tttctgatgt caaaaatgtc
541 ttgggttagc gggaaggagg gttaggagg ggtaaaattc cttagcttag acctcagcct
601 gtgctgccc tcttcagcct agccgacctc agccttcccc ttgccagggg ctcagcctgg
661 tgggctcct ctgtccagg ccctgagctc ggtggacca gggatgacat gtccctacac
721 cctccctctg ccttagagca cactgtagca ttacagtggg tgccccctt gccagacatg
781 tgggtgggaca gggaccact tcacacacag gcaactgagg cagacagcag ctcaggcaca
841 cttcttcttg gtcttattta ttattgtgtg ttatttaaat gagtgtgttt gtcaccgttg
901 gggattgggg aagactgtgg ctgctggcac ttggagccaa gggttcagag actcaggggc
961 ccagcactaa agcagtggac cccaggagtc cctgtaata agtactgtgt acagaattct
1021 gctacctcac tggggtcctg gggcctcgga gcctcatccg aggcagggtc agggagggg
1081 cagaacagcc gctcctgtct gccagccagc agccagctct cagccacga gtaatttatt
1141 gtttttctc gtatttaaat attaaatatg ttagcaaaaga gttaatatat agaagggtac
1201 cttgaacact gggggagggg acattgaaca agttgtttca ttgactatca aactgaagcc
1261 agaaataaag ttggtgacag at

(2) INFORMATION FOR SEQ ID NO:2900:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6952 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2900:

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1 ggatccccgc tgacaatcta gaaacaagca acagaccctc tgatgtagcc atctgtgccg
61 cgctctcccg caccgcccgc cagccttggt tccctggaga ccaccctcca gggcaggggc
121 tgcgctcggc cggggcccgc ggggtccctc ggctgacat ggccggtgct ggagcggcac
181 gtgcgcgcct cggcccctcg gccgctcccg cccctcgccg gtgcgcaccg gcgctcgggg
241 agcgcgtggc cggggtgtcc agccggccct tgcctgcct ggcgctcgga ccgccacctt
301 tgcgcccccc tcgccagcct ccgagcttc cagactggcc ggtctgcgcg cccacccttg
361 cctcccggac cggccaccgc cggaggccgc ggaggaggcc cggccgcgc agatcccgcg
421 tatcgggccc catctcccgt tacataaggc ccccccccta tctccgcggg ccacgcgcgc
481 cgcaaccgcc gcgccagcgc cttctccac gcgcgggggc gcccctgccc accgctcccg
541 gcagggcttt tggtgccat gggggataag gggcggtgac tcaccggggc ggggctccgg
601 gagggtgcac gaccaaggta gttcccgcct cctcccacca tcacggagac cctgtgggag
661 atgcggtggg cctctacta cagattagga aacaggcccg tagaggggtc gcgcggccaa
721 gtacgggcac tcaggcact gggggccctc gagggaagg gcagacttct gggagtcaga
781 gccagcagct gggctgggaa gcttcgagtg tggacagaga ggggtgggat gacgttccct
841 gtgggaagag aggggtggca agcctgggat gcctctgagc ggaatccag catgccttgt
901 gaggagggtc acaagcacac ccttgtgagg aggttgagcc ccatcgagga caggacggag
961 ggagcctgag caggcagaga gggggcctgg ggaggcgtg gttcggggag gaagtgggta
1021 ggggagaaat cttgacatca acaccaaca ggcaaatgcc gtggcctctg ctgtgggggt
1081 tcttgaggga cttctaggaa aacgagggaa gacgagaaa agcgacatg gctgtagggc
1141 caagcccagg agccgcctc cacagcactc attctgcaga agggaaattt gaggcccca
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1261 ggcactagga acacttaca tctctgacct ggaactaagg tgcagcctg gccagttaa
1321 gaggtttcca gaaggatggc ccatacactt taaattaaag gggccagaca cgtgcacact
1381 acttccagcc actctggaag ctgagggtgg gggatcgctt gactctggga gttggaggcc
1441 agcctaggca ggcaacatag tgagacccca tctccaaaaa aacaaaaaaa aacaaaaaaa
1501 aaaaaaccca aaaaagctcc cagaaagacc tctgaattct tctggatctc tcagtggaga
1561 cctggaatc tgaactttga caatccctct cacagtgggg ccaaggagga attaggcaag
1621 ccaaaagaa tgaactttac tcttctattg cctgtttgaa tttgtatcc aagcaagtgt
1681 tcttaagta atttaagaga ctggttcac gaaaaataa aactcccaa attccatag
1741 ctggttagact ttgggtcacag ccacagtga ctaagactat ctgctcagca cttctggtga
1801 cccaaaaggg tctgaggaca ggaactcaga gttgggtcag ctgtccaggt actcagggtt
1861 gtcacaggca aaactgctgg aactcagggc agcattgcaa atgccacgcc gctctcaggg
1921 ccccttgctt gccgtggaa ttaaaaccac ccagatcttg gaaactctgc cctggacctt
1981 tctcaataag tccatgagaa atcaaaactt ttcctttatg cgacactgga tttccacaa
2041 agtaaaatca agatgagtaa agatgtggtt tctagatagt gcctgaaaaa gcagagacca
2101 tggtgtcagg cgtcaccact tgggcctata aaagctgcca caagacgcca aggccacaag
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2341 agaaggtagg tctcggtcag ccagggtcct agctatgagg gctccagggt ggggtattcc
2401 caagatgagg tcatgagcag gctgggcctg gtcctaagat gcctgtagggt caggaaaaat
2461 ctccatggac caaggcccg ccagccatg agggagagag gactgtgggt ggggggctca
2521 gcaactgtga tggacctatg gaggtgtctg gcagactccc cagggaactac ctgctctcct
2581 ggcctggcct tgtctgccac tgcagctcc tactcagcca ttctgaaca gaggacagca
2641 gagaagggcc agcaccctcc cagaaccatg tggcatttgc caactggatt ttgaccataa
2701 caatgcagcc attctcccca gcaccatcat agggccggcc ttacaggagg attcgttagt
2761 agagtccgct ccttgcccca ctagtaacag ctacatgtc tgagcactgc ttacaccagg
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2941 gcctggccaa caccagagtg tccatgtccc taactgcagt gttccctcac catcagaagg
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3301 ggatgcttgt ggggcctgtg ctggggcaga cctggcctgg gctgccaggg caggccca
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3601 caccaccagc actcactgac gccaggcatc tcagcccat ctctctgag actcaca
3661 ggcagctgcc caagcagggc ctgacccctc ggtgtccct cccacagta cgtgcagcc
3721 ctggaatccc tgatcaacgt gtcaggctgc agtgccatcg agaagacca gaggatgctg
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3781 agcggattct gcccgacaaa ggtctcagct ggggtaaggc atccccacc ctctcacacc
3841 caccctgcac cccctcctgc caaccctggg ctgctgaag ggaagctggc tgaatatcca
3901 tgggtgtgtt ccaccaggg gtggggccat tgtggcagca gggacgtggc ctctgggatt
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4021 cagtagaggt actaacagta cccacctcat ggggacttcc gtgaggactg aatgagacag
4081 tccctggaaa gccctggtt tgtgcgagtc gtcccgccct ctggcgctct actcacgtgc
4141 tgacctcttt gtctgcagc agttttccag cttgcatgtc cgagacacca aaatcgagggt
4201 ggcccagttt gtaaggacc tgctcttaca tttaaagaaa ctttttcgag agggacgggt
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5281 aggaagcccc accttctgtc tgctgcacca gcaaggacgg agaggcttgg gccagactgt
5341 cagggttcaa ggagggcac aggagcagc ggagaccag gaagtctcac aatcacactc
5401 cctgaggact ggccagctgt gtctggcacc acccacacat ccatgtctcc ctcaacccc
5461 aggagggcca tgagaactgt gaggtctaga aagcgtgggc ggtttgccta aggtcacgta
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5641 atttctgtcc aatgtcacc tgtcctgaat atcctctcct gttggcactg ggcctcatgg
5671 aagccaccca gcctatgcat ccgctcctca atcctctcct gttggcactg ggcctcatgg
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5791 ctgtgcctcc ctctacagcc ctacaggagc tcattgagga gctgggtcaac atcacccaga
5851 accagaaggc tccgctctgc aatggcagca tggtaggag catcaacctg acagctggca
5911 tgtactgtgc agccctggaa tccctgatca acgtgtcagg ctgcagtgcc atcgagaaga
5971 cccagaggat gctgagcgga ttctgcccgc acaaggctc agctgggcag ttttccagct
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6571 gggattgggg aagactgtgg ctgctggcac ttggagccaa gggttcagag actcaggggc
6631 ccagcactaa agcagtggac cccaggagtc cctggtaata agtactgtgt acagaattct
6691 gctacctcac tgggttctg gggcctcgga gcctcatcc aggcagggtc agggagggg
6751 cagaacagcc gctcctgtct gccagccagc agccagctct cagccaacga gtaatttatt
6811 gtttttcttc gtattttaat attaaatat ttagcaaga gttaatatat agaagggtac
6871 cttgaacact gggggagggg acattgaaca agttgtttca ttgactatca aactgaagcc
6931 agaaataaag ttgtgacag at

(2) INFORMATION FOR SEQ ID NO:2901:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1270 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2901:

1 ttcggcatcc gtcctcaat cctctcctgt tggcactggg cctcatggcg cttttgttga
61 ccacggtcac tgcctcact tgccttggcg gctttgcctc cccaggccct gtgctccct
121 ctacagccct caggagctc attgaggagc tggtaacat caccagaac cagaagctc
181 cgctctgcaa tggcagcat gtatggagca tcaacctgac agctggcatg tactgtgcag
241 cccctggaatc cctgatcaac gtgtcaggct gcagtgcctc cgagaagacc cagaggatgc
301 tgagcggatt ctgccgcac aaggtctcag ctgggcagtt ttccagcttg catgtccgag

361 acacccaaaat cgaggtggcc cagtttghtaa aggacctgct cttacatttta aagaaacttt
421 ttccgcgaggg acggtttcaac tgaactctcg aaagcatcat tatttgacaga gacaggacct
481 gactattgaa gttgcagatt ctttttctt tctgatgtca aaaaatgtctt gggtaggcgg
541 gaaggagggt tagggagggt taaaattcct tagcttagac ctcagcctgt gctgcccgtc
601 ttcagcctag ccgacctcag ccttcccctt gcccgaggct cagcctggtg ggcctcctct
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781 gacccacttc acacacaggg aactgaggca gacagcagct caggcacact tcttcttggt
841 cttattttatt attgtgtgtt atttaaatga gtgtgtttgt caccgtttgg gattggggaa
901 gactgtggct gctggcactt ggagccaagg gttcagagac tcagggcccc agcactaaag
961 cagtggaccc caggagtccc tggtaataag tactgtgtac agaattctgc tacctcactg
1021 gggctcctggg gctcggagc ctcatccgag gcagggtcag gagaggggca gaacagccgc
1081 tctgtcttgc cagccagcag ccagctctca gccaacgagt aatttattgt ttttctcgt
1141 atttaaatat taaatatgtt agcaaagagt taatatatag aagggtacct tgaacactgg
1201 gggaggggac attgaacaag ttgtttcatt gactatcaaa ctgaagccag aaataaagtt
1261 ggtgacagat

(2) INFORMATION FOR SEQ ID NO:2902:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3999 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2902:

1 tcagcccgcc cggtctccga ggcgagaggc tgcattggagt ggccggcgcg gctctgcccc
61 ctgtggcgcc tgctgctctg cgcggcgccg gggggcgggg gcggggggcg cgccctacg
121 gaaactcagc cactgtgac aaatttgagt gtctctgttg aaaacctctg cacagtaact
181 ttgacatgga atccaccga gggagccagc tcaaatgtga gtctatggtt ttttagtcat
241 ttggcgacaa aacaagataa gaaaatagct ccggaaactc gtctgttcaat agaagtaccc
301 ctgaatgaga ggatttgtct gcaagtgggg tcccagtgtg gcaccaatga gagtggagaag
361 cctagcattt tggttgaaaa atgcattctca ccccgagaag gtgacccctg gctgctgtg
421 actgagcttc aatgcatttg gcacaacctg agctacatga agtgttcttg gctccctgga
481 aggaatacca gtcccagcac taactatact ctctactatt ggcacagaag cctggaaaaa
541 attcatcaat gtgaaaacat ctttagagaa ggccaatact ttggttggtc cttgatctg
601 accaaagtga aggattccag ttttgaacaa cacagtgctc aaataatggt caaggataat
661 gcaggaaaaa ttaaacctac cttcaatata gtgcctttta cttcccggtg gaaacctgat
721 cctccacata ttaaaaacct ctccctccac aatgatgacc tatatgtgca atgggagaat
781 ccacagaatt ttattagcag atgcctattt tatgaagtag aagtcataaa cagccaaact
841 gagacacata atgttttcta cgtccaagag gctaaatgtg agaatccaga atttgagaga
901 aatgtggaga atacatcttg tttcatgtgc cctgggtgtc ttctgatac tttgaacaca
961 gtcagaataa gagtcaaaac aaataagtta tgctatgagg atgacaaact ctggagtaat
1021 tggagccaaag aaatgagat aggtagaag cgcaattcca cactctacat aacctgtta
1081 ctcatgtgtc cagtcattgt cgcagggtga atcatagtag tccgtcttta cctaaaaagg
1141 ctcaagatta ttatattccc tccaattcct gatcctggca agatttttaa agaaatgttt
1201 ggagaccaga atgatgatac tctgactgg aagaagtacg acatctatga gaagcaaac
1261 aaggaggaaa ccgactctgt agtgctgata gaaaacctga agaaagctc tcagtgtagg
1321 agataattta tttttacctt cactgtgacc ttgagaagat tcttccatt ctccatttgt
1381 tatctgggaa cttattaaat ggaactgaa actactgcac catttaaaaa caggcagctc
1441 ataagacca caggtcttta tgttgagtcg cgcaccgaaa aactaaaaat aatgggcgct
1501 ttggagaaga gtgtggagtc attctcattg aattataaaa gccagcaggc ttcaaactag
1561 gggacaaaag aaaaagtgtg gatagtggtg gagttaatct tatcaagagt tgtgacaact
1621 tctgtaggga tctactcttg ctttgtgttc tttgtgtcaa catgaacaaa ttttatttgt
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1741 aaaacaaaat ggataaaatc tgatatgtat tgtttgggat cctattgaac catgtttgtg
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1981 tgctgtaat ccagctact cgggaagctg aggcagggtg attgtttgaa cctgggagggt
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 2761 cagagatgag gtggtatctt cacgtagaac attggtattc gcttgagaaa aaaagaatag
 2821 ttgaacctat ttctctttct ttacaagatg ggtccaggat tcctcttttc tctgccataa
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 3241 ggcaacctgc ttccatggcc gttagaagc atggtgccct ggcttctctg aggaagctgg
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 3481 ctccccctag ccatttttac tgttatccta tttagatggc catgaagagg atgctgtgaa
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 3661 tatgggaata cctgtgtgtg ttgtgatccc taggtcttgg gagctcttgg aggtgtctgt
 3721 atcagtggat ttcccatccc ctgtgggaaa ttagttagct catttactgt tttaggtcta
 3781 gccatgtgg atttttctt aacataccta agcaaaccca gtgtcaggat ggtaattctt
 3841 attctttcgt tcagttaagt tttcccttc atctgggcac tgaagggata tgtgaaacaa
 3901 tgttaacatt tttggtagtc ttcaaccagg gattgtttct gtttaacttc ttatagggaa
 3961 gcttgagtaa aataaatatt gtcttttct atgtcaccc

(2) INFORMATION FOR SEQ ID NO:2903:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4039 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2903:

1 tgccaaggct ccagcccgcc cgggctccga ggcgagaggc tgcatggagt ggccggcgcg
 61 gctctgcggg ctgtggcgcc tgcgtctctg cgcggcgccg gggggcgggg gcggggcgcg
 121 cgcgccctacg gaaactcagc cacctgtgac aaatttgagt gtctctgttg aaaacctctg
 181 cacagtaata tggacatgga atccaccga gggagccagc tcaaatgtga gtctatggta
 241 ttttagtcat tttggcgaca aacaagataa gaaaatagct ccggaaactc gtcgttcaat
 301 agaagtaccc ctgaatgaga ggatttgtct gcaagtgggg tcccagtgtg gcaccaatga
 361 gactgagaag cctagcattt tggttgaaaa atgcatctca cccccagaag gtgatcctga
 421 gctctgctgtg actgagcttc aatgcatttg gcacaacctg agctacatga agtgttcttg
 481 gctccctgga aggaatacca gtcccgacac taactatact ctctactatt gccacagaag
 541 cctggaaaaa attcatcaat gtgaaaacat ctttagagaa ggccaatact ttggttgttc
 601 ctttgatctg accaaagtga aggattccag ttttgaacaa cacagtgtcc aaataatggg
 661 caaggataat gcaggaaaaa ttaaacctac cttcaatata gtgcctttaa cttcccggtg
 721 gaaacctgat cctccacata ttaaaaacct ctccctccac aatgatgacc tatatgtgca
 781 atgggagaat ccacagaatt ttattagcag atgcctattt tatgaagtag aagtcaataa
 841 cagccaaaact gagacacata atgttttcta cgtccaagag gctaaatgtg agaatccaga
 901 atttgagaga aatgtggaga atacatcttg ttcatggtc cctgggtgttc ttctgtatc
 961 tttgaacaca gtcagaataa gagtcaaac aaataagtta tgctatgagg atgacaaact
 1021 ctggagtaat tggagccaag aaatgagtat aggtagaag cgcaattcca cactctacat
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 1501 aatgggcgct ttggagaaga gtgtggagtc attctcattg aattataaaa gccagcaggc
 1561 ttcaaaactag gggacaaaagc aaaaagtgat gatagtgtg gagttaatct tatcaagagt
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 1981 tgggtggcgcg tgcctgtaat ccagctact cgggaagctg aggcaggtga attgtttgaa
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 2401 ctgtgtcttt gggttgtgct agggccccgg gtgtgaagca cagacccctt ccagggggttt
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 2941 ggctctgttt atgcttttgg gggcatata ttgggttcca ttctcaccta tccacacaac
 3001 atatccgtat atatccccct tactcttact tcccccaat ttaaagaagt atgggaaatg
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 3241 gggtagaagt ggcaacctgc ttccatggcc gtgtagaagc atggtgccct ggcttctctg
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 3361 tgggagacag ccgtagtaga tgttctactt tgttctgctg ttctctagaa agaattattg
 3421 gtttctctgt ataggaatga gattaattcc ttccaggta ttttataatt ctgggaagca
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 4021 gcggtggaat ctccagctt

(2) INFORMATION FOR SEQ ID NO:2904:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5670 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2904:

1 ggatccccgc tgacaatcta gaaacaagca acagaccctc tgatgtagcc atctgtgccg
 61 cgectctecg caccgcccgc cagccttgg tccctggaga ccaccctcca gggcaggggc
 121 tgcgctctcg ccgggcccgc ggggtccctc ggctgacat ggccgggtgt ggagcggcac
 181 gtgcgcgect cgccccctcg gccgctcccg cccctcgccg gtgcgcaccg gcgctcgggg
 241 agccgctggc ccgggtgtcc agccggccct tgcctgtcct ggctgtcggg ccgccacctt
 301 tgcgcgcccc tcgcccagct ccgcagcttc cagactggcc ggtctgcgcg cccaccctcg
 361 cctcccgac cgccaccgcg cggaggccgc ggaggaggcg ccggccgcgc agatcccgct
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 481 cgcaaccgccc gcgcccagcg cttctcccac gcgcgggggg ccccttggcc accgctcccg
 541 gcagggcttt tgggtggccat ggggataaag ggcggttgac tcacccgggc ggggtcccg
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2821 cctggtgcac gtgctttatg tgcatttca tcactgccag ccacctcaag aggcaggtac
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3121 tcttgccctg actatggcaa gccttgcctg cagcttgcct cttactagtg gtgtcaattt
3181 ttttctctca gctccaagac cctaaacagt gggacctcac ccctatgcct gctgttcaaa
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4321 gattcatttt tctttctgat gtcaaaaatg tcttgggtag gcgggaagga ggggttaggga
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4861 gagcctcatc cgaggcaggg tcaggagagg ggcagaacag ccgctcctgt ctgccagcca
4921 gcagccagct ctacgccaac gactaattta ttgtttttcc tcgtatttaa atattaaata
4981 tgtagcaaa gagttaatat atagaagggt accttgaaca ctgggggagg ggacattgaa
5041 caagttgttt cattgactat caaactgaag ccagaaataa agttggtgac agataggcct
5101 gattgtattt gtctttcatt ttggcctttg gggacactgg tctgtgtct gaagactctg
5161 aggagctctt cgggaggctg gtgggttgga ggggggact gggatggatt acagcagggg
5221 tagggtgcag tgacctgggc tgaatgcaag ctagctccc aggggtggga catggcctga
5281 aggaagcccc acctctgtgc tgctgcacca gcaaggacgg agaggcttgg gccagactgt
5341 cagggttcaa ggagggcac aggagcagac ggagaccag gaagtctcac aatcacatct
5401 cctgaggact ggcagctgt gtctggcacc acccacacat ccatgtctcc ctcacaaccc
5461 aggagccga tgagaactgt gaggctcaga aagcgtgggc ggtttgccta aggtcacgta
5521 gctacttct cactgggtgc ctggggcctc agagcctcat ctgaggtaaa ggagcaagt
5581 tgggattggg gtccaaaatt cactttaact ccaaagccca cacactaac caccctgcct
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(2) INFORMATION FOR SEQ ID NO:2905:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14978 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2905:

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61  ccacggtcac  tgctctcact  tgctttggcg  gctttgcctc  cccaggccct  gtgcctccct
121 ctacagccct  caggagctc  attgaggagc  tggtaacat  caccagaac  cagaaggctc
181 cgctctgcaa  tggcagcatg  gtatggagca  tcaacctgac  agctggcatg  tactgtgcag
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(2) INFORMATION FOR SEQ ID NO:2906:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1793 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2906:

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(2) INFORMATION FOR SEQ ID NO:2907:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1793 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2907:

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601 gtacgtaaaa ctgacccaca aaatccaaaa ttgcaagtgc cagatgccag ccaggtcaga
661 acatcctggc ttcagcaatg ggctgctcag catgggagcc ttttatgggc caggcctggc
721 tgggctgccg ctcccttccc agcatgaccc aacaccaggc tctctaggcc ctggcgaggg
781 tgggctcttg aggccagtc tggcctgatg cttctgtgct cgggtgctct gggtagcaag
841 gcgcttctgt gaccctgggg gagctgggtg cttgagcccc agggccctct ggccctctct
901 cagggccact gtcagttagg gagccctggc caccagcact caggtcctgt accctcttgt
961 tcaggtcatt gcgctctgtc tgcagtgcgc ggcacagctt ctccagccgt tggattttta
1021 cctgcaggcc ctccagttct ttatcccgga ctgttttctc ctccagccat tcaagcaggg
1081 cctgtttgct gctctccac cgggaccggt acatggtggt ttctttctcc agcttcttga
1141 tcttcttagt catcttttcc atctctgct tgaatgtggt gaatacctcg ctgcttttgg
1201 aaagtgtgtt ctggaactcc tcaaacttct ctgtgtatag ggcaagctgt tgcttcagggt
1261 gggctctctg ctgcttcac agctcacaca tctctggga ctctactgcc tctttcagga
1321 gaaaatcctt ctcccgctgg tgcgctctt ctgcctcctt tagcatctcc tgggctgct
1381 ggagcttggc atccaccagc tgctgttcta ggtccttggg tttgaagact ttgtcgatat
1441 gctcctcgcg cagctcatac tgctcaatca gcttctttag cctctcagcc agctccatgt
1501 tctcttggcg cagcttggag ttgcgctcat tgtgctgttc catctgcagc tgaatgtcat
1561 tcagtgtcac ctggaagtgc gaggtcacct ccttgccgtt ctccctctcc tcccggggcc
1621 gctgcacacc ttcttctctg agggagcggg tgtgcccgtg cagctcacgg cataggctct
1681 caagcttgct gcgggccagg acggcttgct gtgctcaccg cgcaggtggt ccttctcttg
1741 caccagctgg ctctgctttt tctgtaggag cttcatctgc ttctgtgaat tcc

(2) INFORMATION FOR SEQ ID NO:2908:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1248 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2908:

```

1 aaatcctggc tgtcatgtac ttgctatggg cctagagtag cttacctaaa tgctactaac
61 cttcctccat accattattg taaagattaa aggtgatgca tctgttaagt aactaataga
121 gtgcttatta aaaggtaggt gttcaataag tattaattcc ctccccttct ttttcttact
181 agtgcaacttg tgtttttaat ggatcatact ttaccctaga ttgtattgta ggaggcatcg
241 tggatggatg gctgctggaa accccttgcc atagccagct cttcttcaat acttaaggat
301 ttaccgtggc tttgagtaat gagaatttcg aaaccacatt tgagaagtat ttccatccag
361 tgctacttgt gtttacttct aaacagtcac tttctaactg aagctggcat tcatgtcttc
421 attttgggat gcagtaata taccagttg gcccaaagca cctaacctat agttatataa
481 tctgactctc agttcagttt tactctacta atgccttcac ggtattggga accatagatt
541 tgtgcagctg tttcagtgca gggcttccta aaacagaagc caactgggtg aatgtaataa
601 gtgatttgaa aaaaattgaa gatcttatcc aatctatgca tattgatgct actttatata
661 cggaaagtga tgttcacccc agttgcaaag taacagcaat gaagtgcctt ctcttggagt
721 tacaagttat ttcaacttgag tccggagatg caagtattca tgatacagta gaaaatctga
781 tcatcctagc aaacaacagt ttgtcttcta atgggaatgt aacagaatct ggatgcaaag
841 aatgtgagga actggagaaa aaaaatatta aagaattttt gcagagtttt gtacatattg
901 tccaaatggt catcaacact tcttgattgc aattgattct ttttaaagtg tttctgttat
961 taacaaacat cactctgctg cttagacata acaaaacact cggcatttca aatgtgctgt
1021 caaaacaagt ttttctgtca agaagatgat cagaccttgg atcagatgaa ctcttagaaa
1081 tgaaggcaga aaaaatgtcat tgagtaatat agtgactatg aacttctctc agacttactt
1141 tactcatttt ttttaattat tattgaaatt gtacatatatt gtggaataat gtaaaatggt
1201 gaataaaaaa atgtacaagt gttgtttttt aaaaaaaaaa aaaaaaaa

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(2) INFORMATION FOR SEQ ID NO:2909:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1202 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2909:

```

1 tgtccggcgc ccccgggag ggaactgggt ggccgcaccc tcccggctgc ggtggctgtc
61 gccccccacc ctgcagccag gactcgatgg agaattccatt ccaatatatg gccatgtggc
121 tctttggagc aatgttccat catgttccat gctgctgctg acgtcacatg gagcacagaa
181 atcaatgtta gcagatagcc agcccataca agatcgtatt gtattgtagg aggcacgtg
241 gatggatggc tgctggaac cccttgccat agccagctct tcttcaatac ttaaggattt
301 accgtggcct tgagtaatga gaatttcgaa accacatttg agaagtattt ccatccagtg
361 ctacttgtgt ttacttctaa acagtcattt tctaactgaa gctggcattc atgtcttcac
421 tttgggctgt ttcagtgcag ggcttcctaa aacagaagcc aactgggtga atgtaataag
481 tgatttgaaa aaaattgaag atcttattca atctatgcat attgatgcta ctttatatac
541 ggaagtgtat gttcacccca gttgcaaagt aacagcaatg aagtgccttc tcttggagtt
601 acaagttatt tcacttgagt ccggagatgc aagtattcat gatacagtag aaaaatctgat
661 catccttagc aacaacagtt tgtcttctaa tgggaatgta acagaatctg gatgcaaaga
721 atgtgaggaa ctggaggaaa aaaatattaa agaatttttg cagagttttg tacatattgt
781 ccaaatgttc atcaacactt cttgattgca attgattctt tttaaagtgt tttctgttat
841 aacaaacatc actctgctgc ttagacataa caaaacactc ggcatttaaa atgtgctgtc
901 aaaacaagtt tttctgtcaa gaagatgac agaccttggc tcagatgaac tcttagaaat
961 gaaggcagaa aaatgtcatt gagtaatata gtgactatga acttctctca gacttacttt
1021 actcattttt ttaattttat attgaaattg tacatatatt tggaataatg taaaatggtg
1081 aataaaaaata tgtacaagtg ttgtttttta agttgcactg atattttacc tcttattgca
1141 aatagcattt tgtttaaggg tgatagtcaa attatgtatt ggtggggctg ggtaccaatg
1201 ct

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(2) INFORMATION FOR SEQ ID NO:2910:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14968 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2910:

```

1 ggcattgtaa tcagacagaa ctggcctcaa atcctggctg tcatgtactt gctatggggc
61 tagagttagc tacctaaatg ctactaacct tctccatcac cattattgta aagattaaag
121 gtgatgcac tgtaagttaa ctaatagagt gcttattaaa aggtagggtg tcaataagta
181 ttaattccct ttctttcttt ttcttactag tgcacttgtg ttttaattgg atcatacttt

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241 accctagatt gtattgttag aggcacgttg gatggatggc tgctggaaac cccttgccat
 301 agccagctct tcttcaatc ttaaggattt accgtggcct tgagtaatga gaatttcggg
 361 taagaagaaa aatagatgaa aatatectat ggaatttccc ttaaaggctg tctgaatctc
 421 agagtctttg caataagtta catgggtatt ctccaaagat cttgagatat cacagatgtc
 481 tgttcacatt tggattgttc ttattttgaa aataaatagg ttttaaaaaa ccttattgac
 541 catcttgata ggctcttctt gtcattataa atgtgttatt tcacttatcc cactcttttg
 601 tgttctctaa atgtctttgt actcactaaa ttgtgtagtc ttagagggca ggggtgtggg
 661 atcattcatc tttttgaaag gaagcatgaa caattagtgg ttaagggtggc agttaacact
 721 gctttctgaa actttaaaag cttcgacaac acaaaagagg caggtgaaag taccaaaact
 781 ctggtaagtt gtaggataaa tgattttcct aaatcaccaa gaaagattat tagtcactct
 841 caagatggaa tacagtatct gtaattgggt ccattttatc caatttttca ccaataata
 901 ttaataata tcattttcat aatttcatg aagttaatat aactattgca tctctgttag
 961 taatgcatgt tattaacctg tgctgtataa aatattttga cctattaaaa aagaagaag
 1021 gatgaggagg aggtcaaaga taatataaaa actttaagtg gtgacattgg tatgtatgta
 1081 aattaacaaa tatgtcaact ttgttaaat atctttgaca tgcactcgca gaaatattctg
 1141 ttaaggaact ttgtgcataa gagacagagt tggagggtgg agagaaaagt aaaaagata
 1201 aattatagtt ttattatttt tgataagggg cagtaattat gaaattatga caaacttaca
 1261 tcttttagacc tagaaatatg ttgacatgtt attttaaac tcaacttttt actaaaaaat
 1321 ttaaccattt gtctatgatt atatttttca gaaaccacat ttgagaagta tttccatcca
 1381 gtgctacttg ttgttacttc taaacagtca ttttctaact gaagctggca ttcagtctct
 1441 cattttgggg gtaattttat ctttaggcat aaataacatt atgttcattg tcatgatgat
 1501 tgtccttgga tatattttcc attaaattag ttacgttca gtttgcttat atctctaggt
 1561 actcagtatc tgggggatag aagcgagact acagagattt agagagggtt ggtaaacacc
 1621 taactgagca tttttctaca ttgtggtaat agtccaaaca agcattatag cccctcaata
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 1801 cccgtgacact gactcctcct atcccttgat ctttatccta gttcagttta aaacattttc
 1861 ttctttattt aagccttttg ttgtttcctt ctaataaaat tcatatgttt ccatgactat
 1921 taactttttt ctctctctct agatgcagct aatataccca gttggcccaa agcacctaac
 1981 ctatagttat ataacttgac tctcagttca gttttactct actaatgcct tcatgggtatt
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 2461 aggaactag taattcattc aaattcattt attgagcatt gccacacatc tggcactgct
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8401	cacacactgt	ggcacataaa	acttgtgaaa	tctgaacaag	gtgagtgcac	tgtattaatg
8461	tcaattttct	gattgtaata	ctgtactgtg	gttatggaag	acattaccac	tgggagaagc
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8641	taatatTTTaa	agcagggcac	agtttttaac	attgtctaat	tttgtttcc	ttcagttcat
8701	gcataattgat	gctactttat	atacggaaa	tgatgttcac	gtgagtatac	tttttttcaa
8761	aattgtctatt	tgtcttgtta	ttaaagtttt	taaaagtata	tttttgtaac	aactaaaaata
8821	tggtagtttt	aaaatctaac	ttttggtgtg	tttctataat	atatggcca	tgagttttat
8881	tagtgattat	tgagatggga	cttggggaca	gatagctaca	tcaatgctat	ttttgtaatg
8941	gtgccaaatc	aaaatattaa	aagagtcttt	tccatcaatg	tcaaacaaga	tacattatac
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9361	gaaatgaatc	cccaacttca	cgtcagggaa	aacaaactct	atgtctcttc	tccattattc
9421	ctcaattaga	acttctctta	catagatgac	tttctaagca	ttggaagaa	accatagtca
9481	gaaactagaa	aaaagagata	ttcactaac	aattgggtca	tgctgtcga	caaagaaatt
9541	gtctccctcc	tctgcttcca	gcattggattc	tggttttctt	tgcatttttt	gtaaaatgga
9601	aagtagtcaa	ttagccacca	aattcagcat	cctgaaattg	cttttttga	agaagataac
9661	tttgcaccc	atgggttaga	gaaacaacct	tagatttttag	attttagatt	ttagaagttt
9721	agatttttaa	actgactcca	ccacttttta	cttgtgttac	cttggagatt	gctaaacatt
9781	tctgaagctc	atttttatta	ttgctgatat	ggtgacagta	tttgtctttc	aatcctaagc
9841	agtgaactgt	gggttttaag	aatattacca	gtgctgggca	catgggtgta	tcccttcatt
9901	ttttttatcc	attcagtaag	catttgtgaa	gtgctcgcag	gctcccaggt	actgtgcaag
9961	gtatcgagga	cacaaagtca	aataatggtc	aaatccctag	atattccttg	tttccctttc
10021	ttaaagttatt	gttaaagtaa	atgttgtgga	aaacatattt	ttgtggcacc	taagagagcc
10081	ttttctgatt	tgatctgcct	gtaagtggac	actagtcctg	ctttgatttt	tctaataaat
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10201	agctaccact	atttaaaatg	ttaaacaacac	aatttgattc	taaaaattct	tacaaataaa
10261	ctgtctatat	tgatgttttc	agactctaag	gccagtatta	ttaccctttc	cacaggggaa
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10561	aatcagaaaa	aagtaattgt	tctttataac	ttttattttt	agcccagttg	caaagtaaca
10621	gcaatgaagt	gcttctctct	ggagttaaca	gttatttcac	ttgagtccgg	agatgcaagt
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10741	gtgagttttc	caacagttgc	ttagagttgc	atcttatggt	ttgggcctga	tttgagagaag
10801	tcattcattg	acaagcagat	cctcctaagg	ggcaatcagg	agaaggagtc	ctgttccagt
10861	ggagtgggtg	gcaaaagtgg	caccatctcc	agcatgcaca	caatgctaaa	ctgttcaatg
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11041	ttgtagagaa	ttaatctaat	tacatactca	aatgtctaac	atcaataata	gtaactcaca
11101	tttattgagt	tattactgta	tgccagacac	tattctttga	gctttaaatt	gataattcat
11161	ttaatcctca	tgataaatct	gtgagatagt	tatctttatt	tctgtttgaa	tggtgaagaa
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11581	tcatttcata	aatacttttt	agccctcagg	agacagtatg	aaaaaatacc	cataatccct
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11701	gttattttatg	aagtccagtg	gtgaaaaagg	acacagggta	ggggcactgg	ggctccagtt
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12121	gtactatata	caaatcccca	gaacagtgtc	tcataatat	taaatacttt	acatatgtat
12181	gaaatgaatt	tattaagggt	tataatactc	ttatgatgtt	atctccatct	tattgggtgga
12241	aagagtgaac	cacgcaacag	gtaactcatg	gcaaaataaa	tgatgagctc	tttaagtgtg
12301	atgttgatag	tcactctcat	catgacagag	tgtgacatac	gtgctggaat	gcgtgggcag
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12421	agtcaatata	tctgtcttcc	tatctgacat	gattattttc	aggatcaaat	aggacagcat

12481 tatatgaaat atgacagtgc ttggcataga ggaatgtgctt gataaatgtc gctgattctg
12541 aattccaaat agttaatgga tataaaatct aatttttatt tttgctggca cagccttcac
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14461 ggaatcaaaa agattggatg cccctgggtat agaaaactaa tagtgacagt gttcatattt
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14581 ataaagaaaa accctgttga tttgttgag ccattgttat ctgacagaaa ataattgttt
14641 atattttttg cactacactg tctaaaatta gcaagctctc ttctaagga actgtaagaa
14701 agatgaaata tttttgtttt attataaatt tatttcacct taattctggt aatactcact
14761 gagtgactgt ggggtgggaa atgatctctt aagaatttga tttctttcta ttccatagta
14821 caaactcgtt ctctgttgaa acattcttct atcaccacag tgccctatcc atgtacatgt
14881 gttcttattg ctctagtcaa acggtgctta taaatatctt tcagaaagct taggagaat
14941 ctgtatccta tttgacttcc aataatca

(2) INFORMATION FOR SEQ ID NO:2911:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 486 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2911:

1 cggattggga tggacactac ttgattcact tctgggaaat caagatcta cgtaccatgg
61 attttcaggt gcagattttc agcttcctgc taatcagtgc ctcagtcata atgtctagag
121 ccaactgggt gaatgtaata agtgatttga aaaaaattga agatcttatt caatctatgc
181 atattgatgc tactttatat acggaaagtg atgttcaccc cagtgtcaaa gtaacagcaa
241 tgaagtgtt tctcttggag ttacaagtta ttctacttga gtccggagat gcaagtattc
301 atgatacagt agaaaatctg atcatcctag caaacaacag tttgtcttct aatgggaatg
361 taacagaatc tggatgcaaa gaatgtgagg aactggagga aaaaaatatt aaagaatttt
421 tgcaagattt tgtacatatt gtccaaatgt tcatcaacac ttcttgattg caattgattc
481 ctcgag

(2) INFORMATION FOR SEQ ID NO:2912:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17904 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2912:

1 aaatcctggc tgcattgtac ttgctatggg cctagagtag cttacctaaa tgctactaac

61 cttcctccat accattattg taaagattaa aggtgatgca tctgttaagt aactaataga
121 gtgcttatta aaaggtaggt gttcaataag tattaattcc ctccctttct ttttcttact
181 agtgcacttg tgtttttaat ggatcatact ttaccctaga ttgtattgta ggagcgatcg
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301 ttaccgtggc tttgagtaat gagaatttcg aaaccacatt tgagaagtat ttccatccag
361 tgctacttgt gtttacttct aaacagtcac tttctaactg aagctggcat tcatgtcttc
421 attttgggat gcaagtaata taccagttg gcccaaagca cctaacctat agttatataa
481 tctgactctc agttcagttt tactctacta atgccttcat ggtattggga accatagatt
541 tgtgcagctg tttcagtgca gggcttccta aaacagaagc caactgggtg aatgtaataa
601 gtgatttgaa aaaaattgaa gatcttattc aatctatgca tattgatgct actttatata
661 cggaaagtga tgttcacccc agttgcaaag taacagcaat gaagtgtctt ctcttgaggt
721 tacaagttaa ttcaacttag tccggagatg caagtattca tgatacagta gaaaatctga
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17899 ctcgag

(2) INFORMATION FOR SEQ ID NO:2913:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1610 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2913:

1 ccagagcag cgctcgccac ctccccccgg cctgggcagc gctcgcccg ggagtcacgc
61 ggtgtcctgt ggagctgccg ccattggccc gcggcgggcg cgcggctgcc ggacctcgg
121 tctcccggcg ctgctactgc tctgtgctct cgggcccggc gcgacgcggg gcatcacgtg
181 cctccccccc atgtccgtgg aacacgcaga catctgggtc aagagctaca gcttgtaactc
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301 ggagtgcgtg ttgaacaagg ccacgaatgt cgcccactgg acaaccccca gtctcaaatg
361 cattagagac cctgccctgg ttcaccaaag gccagcgcca ccctccacag taacgacggc
421 aggggtgacc ccacagccag agagcctctc cccttctgga aaagagcccg cagcttcatc
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1261 agaaaagtga cataccctga gctctctgtc aattacaagg cttctcctgg cgtgggagac
1321 gtctacaggg aagacaccag cgtttgggct tctaaccacc ctgtctccag ctgtctgca
1381 cacatggaca gggacctggg aaaggtggga gagatgctga gccagcgaa tctctctcat
1441 tgaaggattc aggaagaaga aaactcaact cagtgcatt ttacgaatat atgcgtttat
1501 atttatactt cttgtctat tatatctata cattatata ttttgtatt ttgacattgt
1561 acctgtgata aacaaaataa aacatctatt ttcaatattt ttaaaatgca

(2) INFORMATION FOR SEQ ID NO:2914:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 393 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2914:

```
1 atgcctgacc tcaactcctc cactgactct gcagcctcag cctctgcagc cagtgatgtt
61 tctgtagaat ctacagcaga ggccacagtc tgcacggtga cactggagaa gatgtcggca
121 gggctgggct tcagcctgga aggagggaag ggctccctac acggagacaa gccctcacc
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241 gaaatcttgc agctgggtgg cactgccatg cagggcctca cacggttga agcctggaac
301 atcatcaagg cactgcctga tggacctgtc acgattgtca tcaggagaaa aagcctccag
361 tccaaggaaa ccacagctgc tggagactcc tag
```

(2) INFORMATION FOR SEQ ID NO:2915:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3175 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2915:

```
1 tgcttaaaaa aacacaacag gattttcgaa gaatcctttc ttagaaaaa aacaaaaaaa
61 ccaaacaaaa acgtactttc tccccactag tttacaccac aggaagcgag agagtgtgt
121 ccactgtctg taccacagga agacacagca gggagaagcc ctagtgcctc tgccggctgc
181 ccaggacctg gtatcgcccc acagaccaag tcctccacag agggcgagcc aggggtggaga
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361 atcaaaaaact tatttagccc catcatgagt gagaacctat gccacatgcc tctacagccc
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541 aaaggctcct ctgtggctcc caagccagcc tggtttcgcc aaagcttgaa aggtttgagg
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661 gcttccaggg agcacctagg atcacacatc cgggcctcct cctcctcctc ctccatcagg
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1021 ctcttaagcc tgctgtcaac acaggctgag gaatctcaag gccagtgct caagatgcct
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1801 gaggccatgc ccgacctcaa ctccctcaact gactctgcag cctcagcctc tgcagccagt
1861 gatgtttctg tagaatctac agcagaggcc acagtctgca cgttgacact ggagaagatg
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1981 ctaccattta acaggatttt caaaggagca gcctcagaac aaagtggagc agtccagcct
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2521 tgtttcaagt actgtaactg tgtcatgatt caccocccaa cagtgcattt tattttctc
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2701 atctggcgtg tgatgttggc tgggaactca cctggggctg ctggcctgaa tgcttatagg
2761 tggcctctcc ttgtggcctg ggctcctcac aacatgggtg ctgattccc aggatgagca
2821 tcccaggatc gcaagagcca cgtagaagct gcatcttgtt tatacctttg ccttgggaag
2881 tgcattggcat cacctccacc atactccatc agttagagct gacacaaacc tgcctgggtt
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2941 taaggggaga ggaaatattg ctgggggtcat ttatgaaaaa tacagtttgt cacatgaaac
 3001 atttgcaaaa ttgttttttg ttggattgga gaagtaatcc taggggaagg tggtggagcc
 3061 agtaaataga ggagtacagg tgaagcacca agctcaaagc gtggacaggt gtgccgacag
 3121 aaggaaccag cgtgtatatg agggatatcaa ataaaaattgc tactacttac ctacc

(2) INFORMATION FOR SEQ ID NO:2916:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3568 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2916:

1 atgcctgacc tcaactcctc cactgactct gcagcctcag cctctgcagc cagtgatgtt
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 121 gggctgggct tcagcctgga aggagggaag ggctccctac acggagacaa gcccctcacc
 181 attaacagga ttttcaaagg agcagcctca gaacaaagt agacagtcca gcctggagat
 241 gaaatcttgc agctgggttg cactgccatg cagggcctca caggttttga agcctggaac
 301 atcatcaagg cactgcctga tggacctgtc acgattgtca tcaggagaaa aagcctccag
 361 tccaaggaaa ccacagctgc tggagactcc tag
 394 tgcttaaaaa aacacaacag gattttcgaa gaatccttcc ttagaaaaa aacaaaaaaa
 454 ccaaacaaaa acgtactttc tccccactag ttacaccac aggaagcgag agagctgctg
 514 ccaactgctg taccacagga agacacagca gggagaagcc ctagtgcctc tgccggctgc
 574 ccaggacctg gtatcggccc acagaccaag tcctccacag agggcgagcc aggggtggaga
 634 agagccagcc cagtgaacca aacatccccg cactgcttaa gaggcagct
 694 cggatggact atagctttga taccacagcc gaagaccctt gggtaggat ttctgactgc
 754 atcaaaaaact tatttagccc catcatgagt gagaacctag gccacatgcc tctacagccc
 814 aatgccagcc tgaatgaaga agaagggaca cagggccacc cagatgggac cccaccaaa
 874 ctggacaccc ccaatggcac tcccaaagtt tacaagtca cagacagcag cactgtgaag
 934 aaaggtcttc ctgtggctcc caagccagcc tggtttcgcc aaagcttgaa aggtttgagg
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 1054 gcttccaggg agcacctagg atcacacatc cgggcctcct cctcctcctc cccatcagg
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 1474 agccagcgag cacggagctt ccccctgacc aggtccagc cctgtgagac gaagctactt
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 1714 tctgccttgg acacgggggt ctgcctcaac ctttcagagc tgagagaata tacagagggt
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 1954 ggtgctgggtc ttgggttcag ctggcagga ggagcagatc tagaaaaaca ggtgattacg
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 2194 gaggccatgc ccgacctcaa cctctccact gactctgcag cctcagcctc tgcagccagt
 2254 gatgtttctg tagaatctac agcagaggcc acagctctga cggtagacact ggagaagatg
 2314 tcggcagggc tgggcttcag cctggaagga gggaagggt ccttacacgg agacaagcct
 2374 ctacaccatta acaggatttt caaaggagca gcctcagaac aaagttagac agtccagcct
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 2914 tgtttcaagt actgtaactg tgtcatgatt ccccccaaa cagtgcattt tttttctc
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 3094 atctggccgt tgatgttggc tgggaactca cctggggctg ctggcctgaa tgcttatagg
 3154 tggcctctcc ttgtggcctg ggctcctcac aacatggtgt ctggattccc aggatgagca
 3214 tcccaggatc gcaagagcca cgtagaagct gcactctgtt tatacctttg ccttgggaagt
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3334 taagggggaga ggaaatattg ctgggggtcat ttatgaaaaa tacagtttgt cacatgaaac
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 3454 agtaaataga ggagtacagg tgaagcacca agctcaaagc gtggacaggt gtgccgacag
 3514 aaggaaccag cgtgtatatg aggggtatcaa ataaaaattgc tactacttac ctacc

(2) INFORMATION FOR SEQ ID NO:2917:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9203 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2917:

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 61 cctgatgaaa tacagtgaag gctgatgctt attaaactgtg ttcccaaat ccagagctct
 121 aaaaagggttc tgcatacagt cattcattca atgcttaacg actgagcatt aattccatgc
 181 taagtactga actcagcact aggaataaga aggcgacctt gaggcataac ctctctctaa
 241 agatgcatag agcctcattg gaatgatcag ccgtgtctcc agagagctac aaggcagttt
 301 tcaattggta aatgccctga gactgatggg cttgtggcat gtgtaagggt tagacagacc
 361 tgggacctag acatgacacc actcctgacg aattatgtga gtgtgggtgt ttcacaacca
 421 caatgagatg caatgcctgc acttgaaca tggaaatagt gatggcatgc ccgcagatt
 481 gctgtgagaa gtcagcggca gagacatgca acattctcag cacagtgtct gccatgtagt
 541 aagggcctag tcagtgtctg tgattccttt caatattcct aagatgcaga taagggaaca
 601 gccagagga gggggagcac ttccagaggg aggaatgcgg tgagacttcc ttcagcaggg
 661 tagcactgga gctgggtgtt aaggagtga tgagctttgg gcttatggat ttaacagagg
 721 aaaccaagaa aagaggaggg ggtgttcag gaacagtga cagtgtatga tttttatatt
 781 gttctctggt ctgcttggga acatttttgt ggcaaaagaca gcatgaagga tagcgaagaa
 841 ttaatactga agagataggg cagggcaggt tatgaaggat tttgaatacc gggctaagaa
 901 atgtgggctt aatttcaaa acattatgga cactcctaaa atgttacgtt gtatataagg
 961 gaaaagtatt cttccagaag attaaattgg ggctgggcac ggtggctcac gctgtgtatc
 1021 ccagcacttt gggaggcgaa gtgggcagat cacctgaggt caggagtgtt agatcagcct
 1081 ggccaacgtg gtgaagcccc atctctactg aaaaaaaaaa ttgcccgggc atgggtgggtg
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 1381 acaagcatgc cttcacctcc ctgcaaaagac cacagaccac tgagctcaa agggggtttg
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 1681 ggacggagga ctcagttcat gattcataca aaccaactgt tctctcccag tgttttctgg
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 3241 agtctgtggt cacagaggaa gtcattgtcc atgtttcaaa tgtcctcaaa gctcgttcaa
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3481 ctctgccact ctcctcagca tgacttctcc ctaatcggcc agcatttctt ttattctata
3541 gagcaagttt tcttgccctg ggcacctctc atttgcatgt tataccacca caccaagtga
3601 gcttcagagc accagtgttt taatccctga aaacagtcct tacgggattc agcacagagg
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4681 gccattccaa tttatttcc cttctctcag tcttatgat ttcttctctg aagagtattt
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5401 ggaaagaaat ctttgaacc gacttatttg aaattacctc ctgacagcag gtttgaaaca
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7021 gccagttcaa tgacttggtt aacctgggtc catctcagaa ccaagagttg ggcctcttat
7081 ttaccagaaa aattgtggg gctttgtgat atggctttaa aaaaatcttg taattgccag
7141 gcgtgggtgg tcacacctgt aatcccagca ctttgggagg ccgaggtggg tgaatcgctt
7201 aaggtcagga gttcagacc agcctgacca acatggtgaa actccgtctc tactaaaaat
7261 acaaaaaacta gctggatgtg gtgacgcgtg cctgtaatcc tagctactca ggaggtgac
7321 gcaggagaat cacttgaacc tgggaggcag aggttgagat gagccaagat tgtgccattg
7381 cgtccaaaaa aaaaaaaaaa aatacattaa cataaattta aatattttat aatgacaatc

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1741 cataacttagc aaagtgtttac ctgtgcgtta ctaattggcc tctttaagag ttagtttctt
1801 tgggattgct atgaatgata ccctgaattt ggctgcact aatttgatgt ttacaggtgg
1861 acacacaagg tgcaaatcaa tgcgtacgtt tcttgagaag tgtctaaaaa caccaaaaag
1921 ggatccgtac attcaatgtt tatgcaagga aggaaagaaa gaaggaagtg aagagggaga
1981 agggatggag gtcacactgg tagaacgtaa ccacggaaaa gagcgcatca ggcctggcac
2041 ggtggctcag gcctataacc ccagctccct aggagaccaa ggcgggagca tctcttgagg
2101 ccaggagttt gagaccagcc tgggagcat agcaagacac atccctacaa aaaattagaa
2161 attggctgga tgtggtggca tacgcctgta gtcctagcca ctcaggaggc tgaggcagga
2221 ggattgcttg agcccaggag ttcgaggtg cagtcagtca tgatggcacc actgcactcc
2281 agcctgggca acagagcaag atcctgtctt taaggaaaaa aagacaaggg aattc

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(2) INFORMATION FOR SEQ ID NO:2919:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1092 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2919:

```

1 gaattcatgg aaatgggaag ggcagtgatg gagatgggaa gggcagtgagg ggttgaggag
61 gtggggattg ttgttgggta cgaaaacaga attagatcga atgaataaga tctagtatct
121 gatagcataa cagggtgact ttagtcaaca ataatttatt gtacatttaa aaataactaa
181 aagagtatac ttgattttaa acacaaagaa aggataaata cttgaggtga tggatacccc
241 atttaccctg atgtgattat tatacattgt atgcctgtat caaaatagct catgtgcctc
301 atgaatatag acacctacca catgcccaca aaattaaaaa ctaaaaaaa cagtcattct
361 tgaatgctaa acggagtaag gggcttctct gaaggctggg tgaaatggga gtctcggaaa
421 gatggtgtgt tgcaggctgg gaggagggtg agacgctggg gtcacctaga gggacctgct
481 tgtgtgaagc ctacgtatta gtgggtatgt gtgtgaccgg atggaggcgt cagaggtgtt
541 gggtagcctg tgtgagttgg cgtgggggtg atgtaggagg ggagagaggg agggcctcgc
601 ttcccttggc tctgtgtgtc agctaggccc ctatttgaca atgtgtgtct gtgtgtgtgt
661 gtgtgtgtgt gtgtgtgtgt gtgtgcccgc cccagcgtag gaggcagatc tttatctggc
721 cctgggtgct tgaggagttt caggctttct cataagcctc gtctccccgc ctctccacc
781 caggccttgc cctctatcc tctgcacagg aagtgggctg gctctgggct tttagtcttt
841 gcggcccaag cagccagagc tcagcagggc cctggagaga tggccacggt cccagcaccc
901 gggaggactg gagagcgcgc gctgccaccg ccccatgtct cagccagggt atgtccccct
961 gcctccctcc cggccctgtg ggaccagcca gagggtctgg agtgaaagtc acagagaaga
1021 ctttcagctc tgaactcagtt cccccagcag tttctgcctg aactcccatc ccccaacttt
1081 gtcttagaat tc

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(2) INFORMATION FOR SEQ ID NO:2920:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1451 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2920:

```

1 gaagagcaag cgccatgtt aagccatcat taccattcac atccctctta ttcctgcagc
61 tgcccctgct gggagtgggg ctgaacacga caattctgac gcccattggg aatgaagaca
121 ccacagctga tttcttctctg accactatgc cactgactc cctcagtggt tccactctgc
181 ccctcccaga ggttcagtg tttgtgttca atgtcgagta catgaattgc acttgaaca
241 gcagctctga gccccagcct accaacctca ctctgcatta ttggtaaca aactcggata
301 atgataaagt ccagaagtgc agccactatc tattctctga agaaatcact tctggctgtc
361 agttgcaaaa aaaggagatc cacctctacc aaacatttgt tgttcagctc caggaccac
421 gggaaccag gagacaggcc acacagatgc taaaactgca gaatctggtg atcccttggg
481 ctccagagaa cctaactct cacaactga gtgaatccca gctagaactg aactggaaca
541 acagattctt gaaccactgt ttggagcact tgggtgcagta ccggactgac tgggaccaca
601 gctggactga acaatcagtg gattatagac ataagttctc cttgcctagt gtggatgggc
661 agaaacgcta cacgtttcgt gttcggagcc gctttaacce actctgtgga agtgctcagc
721 attggactga atggagccac ccaatccact gggggagcaa tacttcaaaa gagaatcctt
781 tctctgttgc attggaagcc gtggttatct ctggtggctc catgggattg attatcagcc
841 ttctctgtgt gtatttctgg ctggaacgga cgatgccccg aattccacc ctgaagaacc
901 tagaggatct tgttactgaa taccacggga acttttcggc ctggagtgtg gtgtctagg
961 gactggctga gagtctgcag ccagactaca gtgaacgact ctgcctcgtc agtgagattc
1021 cccaaaaagg aggggccctt ggggaggggc ctggggcctc cccatgcaac cagcatagcc
1081 cctactgggc cccccatgt tacaccctaa agcctgaaac ctgaacccca atcctctgac
1141 agaagaaccc cagggtcctg tagccctaag tggtaactaa tttccttcat tcaacccacc
1201 tgcgtctcat actcacctca cccactgtg gctgatttgg aattttgtgc ccccatgtaa
1261 gcacccttc atttggcatt cccacttga gaattaccct tttgcccga acatgttttt

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1321 cttctccctc agtctggccc ttctttttcg caggattctt cctccctccc tctttccctc
 1381 ccttctcttt tccatctacc ctccgattgt tcctgaaccg atgagaaata aagtttctgt
 1441 tgataatcat c

(2) INFORMATION FOR SEQ ID NO:2921:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1563 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2921:

1 gagagactgg atggaccac aaggggtgaca gcccaggcgg accgatcttc ccatcccaca
 61 tcctccggcg cgatgccaaa aagaggctga cggcaactgg gccttctgca gagaaagacc
 121 tccgcttcac tgcccgggt ggtcccaagg gtcaggaaga tggattcata cctgctgatg
 181 tggggactgc tcacgttcat catgggtgcct ggctgccagg cagagctctg tgacgatgac
 241 ccgccagaga tcccacacgc cacattcaaa gccatggcct acaagggaag aaccatggtg
 301 aactgtgaat gcaagagagg tttccgcaga ataaaaagcg ggctactcta tatgctctgt
 361 acaggaaact ctagccactc gtctggggac aaccaatgtc aatgcacaag ctctgccact
 421 cggaacacaa cgaacaagt gacacctcaa cctgaagaac agaaagaaag gaaaaccaca
 481 gaaatgcaaa gtccaatgca gccagtggac caagcgagcc ttccaggtga agagaagcct
 541 caggcaagcc ccgaaggccg tcctgagagt gagacttcct gcctcgtcac aacaacagat
 601 tttcaaatac agacagaaat ggctgcaacc atggagacgt ccatatttac aacagagyac
 661 caggtagcag tggccggctg tgttttctg ctgatcagcg tcctcctcct gagtgggctc
 721 acctggcagc ggagacagag gaagagtaga agaacaatct agaaaaccaa aagaacaaga
 781 atttcttggg aagaagccgg gaacagacaa cagaagtcac gaagcccaag tgaatcaaaa
 841 ggtgctaaat ggtcgcccag gagacatccg ttgtgcttgc ctgcgttttg gaagctctga
 901 agtcacatca caggacacgg ggcaagtggc accttgctctc tatgccagct cagtcccatc
 961 agagagcgag cgctaccac ttctaaatag caatttcgcc gttgaagagg aagggcaaaa
 1021 ccactagaac tctccatctt attttcatgt atatgtgttc attaaagcat gaatggtatg
 1081 gaactctctc caccctatat gtagtataaa gaaaagtagg tttacattca tctcattcca
 1141 acttcccagt tcaggagtcc caaggaaaagc ccagcacta acgtaaatat acaacacaca
 1201 cactctaccc tatacaactg gacattgtct gcgtgggtcc tttctcagcc gcttctgact
 1261 gctgattctc ccgttcacgt tgctaataaa acatccttca agaactctgg gctgctaccc
 1321 agaaatcatt ttacccttgg ctcaatcctc taagtaacc cccttccact gagccttcag
 1381 tcttgaattt ctaaaaaaca gaggccatgg cagaataatc ttgggtaac ttcaaaacgg
 1441 ggcagccaaa ccatgaggc aatgtcagga acagaaggat gaatgaggtc ccaggcagag
 1501 aatcatactt agcaaagttt tacctgtgcg ttactaattg gcctctttaa gagttagttt
 1561 ctt

(2) INFORMATION FOR SEQ ID NO:2922:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 733 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2922:

1 gaattctcag gatccttcag ttcgccgcat ctttctccat tatttgaata ttggaggctg
 61 cctgaccaga atcttgtcag gactttgctc cttcatccca ggtgggtccc gctgactcct
 121 gaggacgtta cagccctgag gggaggactc agccttatga agtgctgggt gagaccactg
 181 ccaagaagtg cttgtctacc ctaccttcaa cggcagggga atctccctct ccttttatgg
 241 gcgtagtga gaaaggattc ataaatgaag ttcaatcctt ctcatcaacc ccagcccaca
 301 cctccagcaa ttgaaactga aaaaaaaaaa ctggtttgaa aaattaccgc aaactatatt
 361 gtcatacaaa aaaaaaaaaa aaaaacactt cctatatatt agatgagaga agagagtgt
 421 aggcagtctc ctggctgaac acgccagccc aataacttaa gagagcaact cctgactccg
 481 atagagactg gatggacca caagggtgac agcccaggcg gaccgatctt cccatcccac
 541 atcctccggc gcgatgccaa aaagaggctg acggcaactg ggccttctgc agagaaagac
 601 ctccgcttca ctgccccggc tggctccaaag ggtcaggaag atggattcat acctgctgat
 661 gtggggactg ctcacgttca tcatggtgac tggtgccag gcaggtgaag gcctgtgggt
 721 gcccccgaa ttc

(2) INFORMATION FOR SEQ ID NO:2923:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 756 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2923:

1 gagctctgtg acgatgaccc gccagagatc ccacacgccca cattcaaagc catggcctac
61 aaggaaaggaa ccatgttgaa ctgtgaatgc aagagagggt tccgcagaat aaaaagcggg
121 tcaactctata tgctctgtac aggaaactct agccactcgt cctgggacaa ccaatgtcaa
181 tgcacaagct ctgccactcg gaacacaacg aaacaagtga cacctcaacc tgaagaacag
241 aaagaaagga aaaccacaga aatgcaaagt ccaatgcagc cagtggacca agcgagcctt
301 ccaggtcact gcaaggaacc tccaccatgg gaaaaatgaag ccacagagag aatttatcat
361 ttctgtggtg ggagatggt ttattatcag tgcgtccagg gatacagggc tctacacaga
421 ggtcctgtcg agagcgtctg caaaatgacc cacgggaaga caaggtggac ccagccccag
481 ctcatatgca caggtgaaat ggagaccagt cagtttccag gtgaagagaa gcctcaggca
541 agccccgaag gccgtcctga gagtgaact tcctgcctcg tcacaacaac agattttcaa
601 atacagacag aaatggctgc aaccatggag acgtccatat ttacaacaga gtaccaggta
661 gcagtggccg gctgtgtttt cctgtgatc agcgtcctcc tcctgagtgg gctcacctgg
721 cagcagagac agaggaagag tagaagaaca atctag

(2) INFORMATION FOR SEQ ID NO:2924:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 711 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2924:

1 gaattctcag gatccttcag ttccgcgcag ccttctccat tatttgaata ttggaggctg
61 cctgaccaga atcttgtcag gactttgtc cttcatccca ggtggtcccg gctgactcct
121 gaggacgtta cagccctgag ggaggactca gcttatgaag tgctgggtga gaccactgcc
181 aagaagtgtc tgctcaccta ccttcaacgg caggggaatc tccctctcct ttatgggctg
241 tagctgaaga aaggattcat aaatgaagtt caatccttct catcacccca gcccaacctc
301 cagcaattga acttgaaaaa aaaaacctgg ttgaaaaat taccgcaaac tatattgtca
361 tcaaaaaaaaa aaaaaaaaaa aaacacttcc tatatttgag atgagagaag agagtgtcag
421 gcagtttctt ggctgaacac gccagcccaa tacttaaga gagcaactcc tgactccgat
481 agagactgga tggaccacac aggggtgacag cccaggcgga ccgatcttcc catccccat
541 cctccggcgc gatgccaaaa agaggctgac ggcaactggg ccttctgcag agaaagacct
601 ccgcttctac gccccggctg gtcccaaggg tcaggaagat ggattcatac ctgctgatgt
661 ggggactgct cacgttcac caggtgcctg gctgccaggc aggttaagggc c

(2) INFORMATION FOR SEQ ID NO:2925:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17944 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2925:

1 gaattcatgc cacaactgag tgattttttt ttctctcaaac ccaattccac aaagtaaaaag
61 cctgatgaaa tacagtgaag gctgatgctt attaaactgtg ttcccaaat ccagagctct
121 aaaaagggtt tgcatacagt cattcattca atgcttaacg actgagcatt aattccatgc
181 taagtactga actcagcact aggaataaga aggcgacctc gaggcataac ctctctctaa
241 agatgcatag agcctcattg gaatgatcag ccgtgtctcc agagagctac aaggcagttt
301 tcaattggta aatgccctga gagtgtggg cttgtggcat gtgtaagggg tagacagacc
361 tgggacctag acatgacacc actcctgacg aattatgtga gtgtgggtgt ttcaaacca
421 caatgagatg caatgcctgc acttgtaaca tggaaatagt gatggcatgc cccgcagatt
481 gctgtgagaa gtcagcggca gagacatgca acattctcag cacagtgcct gccatgtagt
541 aaggccctag tcagtcttag tgattccttt caatattcct aagatgcaga taagggaaca
601 gccagagga gggggagcac ttccagaggg aggaatgcgg tgagacttcc ttcagcaggg
661 tagcactgga gctgggtgtt aaggagtgaag tgagcttttg gcttatggat ttaacagagg
721 aaaccaagaa aagaggaggc ggtgttgacg gaacagtgaag cagttgatga tttttatttt
781 gttctctggt ctgcttggga acatttttgt ggcaagaca gcatgaagga tagcgaagaa
841 ttaatactga agagataggc cagggcaggt tatgaaggat tttgaatacc gggctaagaa
901 atgtgggctt aatttcaaag acattatgga cactcctaaa atgttacgtt gtatataagg
961 gaaaagtatt cttccagaag attaaattgg gctggggcac ggtggctcac gcctgtgatc
1021 ccagaccttt gggaggcgaa gtgggcagat cacctgaggt caggagtgtg agatcagcct
1081 ggccaacgtg gtgaagcccc atctctactg aaaaaaaaaa ttagccgggc atggtgggtg
1141 gtgcctgtaa tctcagctac ttgggaggct gaagcaggag aatcacatga acctgggagg
1201 cagagggttc agtgagccaa gattgcacca ctgcattcca gtggcgaca gagcaagact
1261 cagtcaaaaa aaaaaaaga ttaactgga agcaatgggt aagaatgggt gagtggagag
1321 acacatttga gtgagggaag ccagctgaaa agctgtacag acgtctagac aaaatgtgac
1381 acaagcatgc cttcacctcc ctgcaaagac cacagaccac tgagctccaa aggggggttg

1441 gaatccttgt cctgggccgc catttgtaac tcatcagtcg tggccttgaga gataaactct
1501 attatccatc cctgaactaa aatcatgaca gaagtggcca gggagctttg ctgctatccc
1561 cccaggaac acgtcctcca ctcaaatgga aagaggaccc tctgacaaca tctgtgggac
1621 ccaacagcac tggtcaccac aagccacaaa atgttaacaa agtcagtttt caattgttag
1681 ggacggagga ctcagttcat gattcataca aaccaactgt tctctcccag tgttttctgg
1741 gtggcacaac ccacaagtca acagtggcct gggaactaga catttgagta gagggtgggt
1801 atttgattca tagtggattt tggttttcca cgggacccct gtgcccttgt ctagtagaat
1861 ctgggtgaaa ttacaaactg cagaaattca actcagtgcc gcaataacag gatgcacctg
1921 tagatttcgt agaattagca gcagcattct ttcaatacca gtttgagaga aataaccctg
1981 tttgcatagt gccaaactgg gcagaatctg aagtgtcttg cctgcctctc ggccatggga
2041 ggcaccgacg tcagcaacat ctatccaacc gccatccact taacaagcaa agatggaagg
2101 ccctcgtgct ccagcctatc ctgcaatggg tcatttgctt ttgatgggat tatcactttg
2161 acagatgtgc ttgcaattaa ctgggggctt tctgcttcca atccaaattc ccacaggtgg
2221 atcactggct cttggggagc aaaaaccctt cttgttttgt ttttgcttct cccagagcct
2281 gggcagagct cccattcctt ggatcctacg ttgatatgca ctgaattgaa ttatactaaa
2341 ggggtgcacc aagagtgcag gagctaagta aaatgtaatt tgtgggacct catgtggaca
2401 tttcaggtcc atgtgtacaa gataaaggag agaaaatcct gggggacacc acaggcctgg
2461 gaaaatgacc tcctactaag cctaacaaga acatccagta cataaacagc aggcctctctg
2521 caaccgcttc ggtccttcca ctgccacgct cccagaaagc aaagggttat ctctgttctg
2581 gatttttgct ctgagaccac agctcagcac atcactctc tagagaaaag aaagtctaag
2641 atgagagagt gaggctgctt tcatgtgtg ccagcgtata gtgcaggcca ggctgattg
2701 ctgaacggat ccctgcagac gtgagcgtc acttcccctt ttgaggggcc atttcttttc
2761 ctcttttgagg agactgtgag cgtcctcagt gcagggttat gttttagctt cttggctctc
2821 ctacaggtt ctacataat tctttgatta attgcagtca acggtttattg atggattatg
2881 tgacagaggt gaaattcttt gatctgggtt tcagcttttc ctttccccta ctccctctt
2941 tttctttttt tttttttttt ttttttagagg cgaggtcttg ctctgtggcc ctggctggag
3001 tgcagtgtg caatcatagc tcattgcagc cttgacctcc tggggctcaag cgaacctcaa
3061 cgtctttggc tcctgagtag ctgggactat aggcacgctc caccacgctc agcttccct
3121 tttcctttcc ttgtgctccc ctggcagata tgctggtaaa caatgaacca gtcaagagga
3181 cagcaacagc aggaataatg gagaaacccc attattcgtg gactaaacag gcttcccact
3241 agtcctggct cacagaggaa gtcacgtccc atgtttcaaa tgtcctcaaa gctcgttcaa
3301 ctccaaaatg catgaagaca aaatgggaat tttactcaag atttttgtgg gctgttgggg
3361 agaagagtta acattgcaaa gcatattgca aactcttctc ttcaaatgat tttaaaattt
3421 tcttccaagc tctttattat ttctccagag ctgcccgtct ctcccactc tgggtccttt
3481 ctctgccact ctccctcagc tgacttctcc ctaatcgccc agcatttctt ttattctata
3541 gagcaagttt tcttgccctg ggcacctctc atttgcatgt tataccacca caccaagtga
3601 gctcagagc accagtgttt taatccctga aaacagtcct tacgggattc agcacagagg
3661 tctctttggc agcctgtagt ctccagagtg acacgtctc aacagtcaaa gtgagcaagc
3721 tatgggtgcc atcaccaagt ggggctcacc atttccctct gcgttcactt ctctcctacc
3781 ttcttcttta tcccatcctt cctccttctt tttttttct gcattcaatt attcatgggt
3841 attcatttca tacgggcacg tgtgccactt ggttctacag gcattttttt ttttgagaca
3901 gacttttgcc ctgttccccc aggtggcgt gcagcgtgt gatcttggct cactgcaatc
3961 tccacctcct aggttcaagc aagtctcctg ccttagcctc ccaagtagct ggaattacag
4021 gcatgtgcca ccaagcccg gcaatttttg tatttttagt agagacaggg tttcaccatg
4081 ttggccaggc tgggtctcaa ctccctgacct cagggtgatc gcctgcctcg gcttcccaaa
4141 gtgctgggat aacaggcgtg agccatcgtg ctcgcccggt tctatgggca ttgtggaagt
4201 gaccgttaac aagccccaag ggtaagttaa ggaaatgaa aggtgattga ttcctacca
4261 cctctcccct ttttctctt actctttgcc cctgctcccc aatctagact ctaataaaca
4321 gaaatgattt ttgttgcaag ctgaaaactc gttcttgtgg ttggggctag gggggtggca
4381 agtcaagctt tagagttgtc tggataataa atgctgtctt caaggactgt ccaacattgt
4441 aggaacaaga gaacaacca agtgaacaac taactcctgt tcacaaatgc tactgcctct
4501 ctgccatccc ctaacctcag cctcacacac ttgaatttct ccaatccatt tgatgagctc
4561 aaatcagtg attttctct cgcacaagct cacaaattct gttccccgct tcttgcccca
4621 catccaggca ttaccaactg cattttccct ttgctgata ttctggcctc aagcctcctt
4681 gccattccaa ttattttcac ctctctccag tccttatgat ttcttctctg aagagtattt
4741 cagcatctct atgcctcaat ctctcctgca caccacacca gctcgccctc atcatcacat
4801 tactttgcta tgtcccgcct ggggttagaca gcttcagtgg ctgaagtcca tagatcttat
4861 tctgtttttc gaggctccac tgactctgaa tccagctgac atttctgccc ttagcttcta
4921 cccctctcta ctctgtggtta actatggacc acactctgct tctcaggaa ccacctacca
4981 aggcctgata catccttcaa ggacaatac tgggcctttc ctgatcacat cagctcaaca
5041 acttttccct cctacatttc aattgctctt cttaccataa tcattagtat tcacccact
5101 gtacgtctag aaagaaagtg gtcttaaac taagggaagg cagtctaggt cagaaatttg

5161 ttgtccgctg ttctgagcag tttcttctag gaagtaccaa acattttctga taatagaatt
5221 gagcaatttc ctgatgaagt gagactcagc ttgcactgtt gaccggctgt cctggatgaa
5281 cctagtact ttttaaccaa tgttcccttc ttgaacttgt tcttttcttg aacttaatct
5341 atcaatgtta tctagataac tttcctcaaa aaaaaaaaaa aaaaaaaaaa cctctacta
5401 ggaagaaat ctttgaaccg gacttatttg aaattacctc cttgcagcag gtttgaacaa
5461 aaactttgaa tttgcctcac aaagaatttg tctgaaactg ctttagtata tgctagtatt
5521 atttgtatgc acatgtggct tcatatag tggttgga cccatagtgt ttatgcactt
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(2) INFORMATION FOR SEQ ID NO:2926:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 544 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2926:

1 aagcttaata taaacaagtt tcttgtcact gccaccacca cgaccaaaaa aagctaataca
61 atcactatat ataatacata tatatactat atataataaa tatatatact atatataata
121 catatatata ctatatataa tacatatata ctatatatac actatatact atatatcac
181 atatatatta tgaatgtata tatatagtat atatagtata tactactatgt atgtatatat
241 agtatatata gtatatatac tatgtatgat atatagtata tatagtatat atactatgta
301 tgtgtatata tagtatatat agtatatata gtatatatac tatgtatgta tatatatagt
361 atatatagta tatatactgt gtatgtatat atatagtata tatatactat atatgcatac
421 atagtatata tgcataata ctatatatac tatatattta tatatactat atactatata
481 tactatatac tgtatatata ctatatatgt atgtatacga tatatatata tactatatat
541 gtac

(2) INFORMATION FOR SEQ ID NO:2927:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2002 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2927:

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661 ttcggcaaat gtatgcatgg cactcagat tgtgtgtgtt aatgggcatt ccttctctg
721 gtcagaaacc tgtccactgg gcacagaact tatgttgttc tctatggaga actaaaagta
781 tgagcgttag gacactatth taattattht taattatta atatttaaat atgtgaagct
841 gagttaatth atgtaagtga ttttatatt ttaagaagta ccacttgaaa cattttatgt

901 attagttttg aaataataat ggaaagtggc tatgcagttt gaatatacctt tgtttcagag
 961 ccagatcatt tcttggaag tgtacgctta cctcaaataa atggctaact tatacatatt
 1021 tttaaagaaa tatttatatt gtatttatat aatgtataaa atggttttta taccaataaa
 1081 tggcatttta aaaattcag ca

(2) INFORMATION FOR SEQ ID NO:2928:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1113 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2928:

1 gaattccggg aacgaaagag aagctctatc tcccctccag gagcccagct atgaactcct
 61 tctccacaag cgcttcgggt ccagttgcct tctccctggg gctgctcctg gtgttgccctg
 121 ctgccttccc tgccccagta cccccaggag aagattccaa agatgtagcc gccccacaca
 181 gacagccact cacctcttca gaacgaattg acaaacaaat tcggtacatc ctgcagggca
 241 tctcagccct gagaaaggag acatgtaaca agagtaacat gtgtgaaagc agcaaaagag
 301 cactggcaga aaacaacctg aaccttccaa agatggctga aaaagatgga tgcttccaat
 361 ctggattcaa tgaggagact tgcttggtga aaatcatcac tggctctttg gaggttgagg
 421 tataacctaga gtacctccag aacagatttg agagttagtga ggaacaagcc agagctgtgc
 481 agatgagtac aaaagtcctg atccagttcc tgcagaaaaa ggcaaagaat ctatagtgaa
 541 taaccacccc tgacccaacc acaaatgccg gctgctgac gaagctgcag gcacagaacc
 601 agtggctgca ggacatgaca actcatctca ttctgctcag ctttaaggag ttctctgcag
 661 ccagcctgag ggctcttcgg caaatgtagc atgggcacct cagattgttg ttgttaattg
 721 gcattccttc ttctggtcag aaacctgtcc actgggcaca gaacttatgt tgttctctat
 781 ggagaactaa aagtatgagc gttaggacac tattttaatt atttttaatt tattaatatt
 841 taaatatgtg aagctgagtt aatttatgta agtcataatt atatttttaa gaagtaccac
 901 ttgaaacatt ttatgtatta gttttgaaat aataatggaa agtggctatg cagtttgaat
 961 atcctttgtt tcagagccag atcatttctt ggaaagtgtg ggcttacctc aaataaatgg
 1021 ctaacttata catattttta aagaaatatt tatattgtat ttatataatg tataaatggt
 1081 ttttatacca ataaatggca ttttaaaaaa ttc

(2) INFORMATION FOR SEQ ID NO:2929:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2759 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2929:

1 aagcttaata taaacaagtt tcttgtcact gccaccacca cgaccaaaaa aagctaataca
 61 atcactatat ataatacata tatatactat atataataaa tatataact atataataa
 121 catatataca ctatatataa tacatatata ctatatatac actataact atataacac
 181 atatatatta tgaatgtata tatatagtata atatagtata tatactatgt atgtatatat
 241 agtatatata gtatatatac tatgtatgat atatagtata tatagtatat atactatgta
 301 tgtgtatata tagtatatat agtatatata gtatatatac tatgtatgta tatatatagt
 361 atatatagta tatatactgt gtatgtatat atatagtata tatatactat atagtcatac
 421 atagtatata tgcatatata ctatatatac tatataattta tatatactat atactatata
 481 tactatatac tgtatatata ctatatatgt atgtatacga tatatatata tactatatat
 541 gtac
 545 cagagaagct ctatctcccc tccaggagcc cagctatgaa ctccttctcc acaagcgctt
 605 tcgggtccagt tgccttctcc ctggggctgc tcctggtgtt gcctgctgcc ttccttgccc
 665 cagtaccccc aggagaagat tccaaagatg tagccgcccc acacagacag ccactcacct
 725 ctccagaacg aattgacaaa caaatcgggt acatcctcga cggcatctca gccctgagaa
 785 aggagacatg taacaagagt aacatgtgtg aaagcagcaa agaggcactg gcagaaaaca
 845 acctgaacct tccaaagatg gctgaaaaag atggatgctt ccaatctgga ttcaatgagg
 905 agacttgctt ggtgaaaatc atcactggctc ttttgaggtt tgaggatata ctatagtagc
 965 tccagaacag atttgagagt agtgaggaaac aagccagagc tgtgcagatg agtacaaaag
 1025 tcttgatcca gttcctgcag aaaaaggcaa agaactctaga tgcaataacc accctgacc
 1085 caaccacaaa tgccagcctg ctgacgaagc tgcaggcaca gaaccagtgg ctgcaggaca
 1145 tgacaactca tctcattctg cgcagcttta aggagttcct gcagtccagc ctgagggctc
 1205 ttcggcaaat gtagcatggg cacctcagat tgttgggtgt aatgggcatt ccttctctg
 1265 gtcagaaaacc tgtccactgg gcacagaact tatgttgggt tctatggaga actaaaagta
 1325 tgagcggttag gacactatct taattatctt taatttatta atatttaaat atgtgaagct
 1385 gagttaattt atgtaagtga tttttatatt ttaagaagta ccacttgaaa cattttatgt
 1445 attagttttg aaataataat ggaaagtggc tatgcagttt gaatatacct tgtttcagag
 1505 ccagatcatt tcttggaag tgtacgctta cctcaaataa atggctaact tatacatatt
 1565 tttaaagaaa tatttatatt gtatttatat aatgtataaa atggttttta taccaataaa

1625 tggcatttta aaaaattcag ca
 1647 gaattccggg aacgaagag aagctctatc tccccccag gagccagct atgaactcct
 1707 tctccacaag cgccttcggg ccagttgcct tctccctggg gctgctcctg gtgttgccctg
 1767 ctgccttccc tgccccagta cccccaggag aagattccaa agatgtagcc gccccacaca
 1827 gacagccact cacctcttca gaacgaattg acaaacaaat tcggtacatc ctcgacggca
 1887 tctcagccct gagaaaggag acatgtaaca agagtaacat gtgtgaaagc agcaaaggag
 1947 cactggcaga aaacaacctg aaccttccaa agatggctga aaaagatgga tgcttccaat
 2007 ctggattcaa tgaggagact tgcttggtga aaatcatcac tggctctttg gagtttgagg
 2067 tatacctaga gtacctccag aacagatttg agagtagtga ggaacaagcc agagctgtgc
 2127 agatgagtac aaaagtcctg atccagttcc tgcagaaaaa ggcaaagaat ctagatgcaa
 2187 taaccacccc tgaccacacc acaaatgcc aacctgctgac gaagctgcag gcacagaacc
 2247 agtggctgca ggacatgaca actcatctca ttctgctgag ctttaaggag ttcctgcagt
 2307 ccagccctgag ggctcttcgg caaatgtagc atgggcacct cagattgttg ttgttaattg
 2367 gcattccttc ttctggtcag aaacctgtcc actgggcaca gaacttatgt tgttctctat
 2427 ggagaactaa aagtatgagc gttaggacac tattttaatt atttttaatt tattaatatt
 2487 taaatagtgt aagctgagtt aatttatgta agtcatattt atatttttaa gaagtaccac
 2547 ttgaaacatt ttatgtatta gttttgaaat aataatggaa agtggctatg cagtttgaat
 2607 atcctttgtt tcagagccag atcatttctt ggaaagtgtg ggcttacctc aaataaatgg
 2667 ctaacttata catattttta aagaaatatt tatattgtat ttatataatg tataaatggt
 2727 ttttatacca ataaatggca ttttaaaaaa ttc

(2) INFORMATION FOR SEQ ID NO:2930:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1194 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2930:

1 ggatcctcct gcaagagaca ccattcctgag gggaagaggg cttctgaacc agcttgaccc
 61 aataagaaat tcttgggtgc cgacggggac agcagattca gagcctagag ccgtgctcgc
 121 gtccgtagtt tcttctagc ttctttttga ttccaatca agacttacag ggagagggag
 181 cgataaacac aaactctgca agatgccaca aggtcctcct ttgacatccc caacaaagaa
 241 ggtgagtagt aatctcccc ttctgacct gaaccaagtg gcttcagtaa gtttcagggc
 301 tccaggagac ctgggcatgc aggtgcccag gaaacagtgg tgaagagact cagtggcagt
 361 ggagtgaggg agagcactcg cagcacaggc aaacctctgg cacaagagca aagtctcac
 421 tggaggattc ccaagggtca ctggggagag ggcaggcagc agccaacctc ctctaagtg
 481 gctgaagcag gtgaagaaat ggagaagac gcggtgggtg caaaaaggag tcacacactc
 541 cacctggaga cgccttgaag taactgcacg aaatttgagg gtggccaggc agttctacaa
 601 cagccgcctc acagggagag ccagaacaca gcaagaactc agatgactgg tagtattacc
 661 ttcttcataa tcccaggctt ggggggctgc gatggagtca gaggaaactc agttcagaac
 721 atctttgtgt tttacaatac aaatttaactg gaacgctaaa ttctagcctg ttaatctggt
 781 cactgaaaaa aaaaaaattt tttttttttt aaaaaacata gctttagctt attttttttt
 841 tctctttgtg aaactctgtg catgacttca gctttactct tgtcaagaca tgccaagtgc
 901 tgagtcacta ataaagaaaa aagaagtaaa ggaagagtgg ttctgcttct tagcgctagc
 961 ctcaatgacg acctaatgtg cacttttccc cctagttgtg tcttgcatg ctaaaaggag
 1021 tcattgcaca atcttaataa gtttccaat cagccccacc cgctctggcc ccaccctcac
 1081 cctccaacaa agatttatca aatgtgggat tttcccatga gtctcaatat tagagtctca
 1141 accccaataa aatataggac tggagatgtc tctgaggctc attctgccct cgag

(2) INFORMATION FOR SEQ ID NO:2931:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3319 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2931:

1 ggcggtcccc tgttctcccc gctcaggtgc ggcgctgtgg caggaagcca cccctcggt
 61 cggccgggtgc gcggggctgt tgcccatcc gctccggtt togtaaccgc accctgggac
 121 ggcccagaga cgtccagcg cgagttctc aaatgttttc ctgcgttgcc aggaccgtcc
 181 gccgctctga gtcatgtgcg agtgggaagt cgcactgaca ctgagccggg ccagagggag
 241 aggagccgag cgcggcgcgg ggcggaggga ctgcagtggt gtgtagagag ccgggctcct
 301 cggatggggg gctgcccccg ggcctgagc ccgectgcc ccccaccgcc ccgcccgc
 361 cctgccaccc ctgccgccg gttcccatta gctgtccgc ctctgcggga ccatggagt
 421 gtagccgagg aggaagcatg ctggccgtgc gctgcgcgct gctggctgcc ctgctggcgc
 481 cgcggggagc ggcgctggcc ccaaggcgct gccctgcgca ggaggtggca agagcgctgc
 541 tgaccagtct gccagagac agcgtgact tgacctgcc gggggtagag ccggaagaca
 601 atgccactgt tcaatgggtg ctcaaggaagc cggctgcagc ctcccacccc agcagatggg

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661 ctggcatgga aaggaggctg ctgctgaggt cgggtgcagct ccacgactct ggaaactatt
721 catgctaccg ggccggccgc ccagctggga ctgtgcactt gctgggtggat gttccccccg
781 aggagcccga gctctcctgc ttccggaaga gcccctcag caatgttgtt tgtgagtggg
841 gtcctcggag caccatccat ctgacgacaa aggtctgtgt cttggtgagg aagtttcaga
901 acagtccggc cgaagacttc caggagccgt gccagtattc ccaggagtcc cagaagttct
961 cctgccagtt agcagtcctg gagggagaca gctctttcta catagtgtcc atgtgcgtcg
1021 ccagtagtgt cgggagcaag ttacgacaaa ctcaaaccct tcagggttgt ggaatcttgc
1081 agcctgatac gcctgccaac atcacagtca ctgccgtggc cagaaacccc cgtgggtcga
1141 gtgtcacctg gcaagacccc cactcctgga actcatcttt ctacagacta cggtttgagc
1201 tcagatatcg ggctgaacgg tcaaagacat tcacaacatg gatggtcaag gacctccagc
1261 atcactgtgt catccacgac gcctggagcg gcctgaggca cgtgggtgag cttcgtgccc
1321 aggaggagtt cgggcaaggc gagtggagcg agtggagccc ggaggccatg ggcagcctt
1381 ggacagaatc caggagtctt ccagctgaga acgaggtgtc caccctcatg caggcactta
1441 ctactaataa agacgatgat aatattctct tcagagattc tgcaaatgag acaagcctcc
1501 cagtgcgaag ttcttcttca gtaccactgc ccacattcct ggttgctgga gggagcctgg
1561 ccttcggaac gctcctctgc attgccattg ttctgaggtt caagaagacg tggagcgtgc
1621 gggctctgaa ggaaggcaag acaagcatgc atccgcctga ctctttgggg cagctggtcc
1681 cggagaggcc tcgaccaccc ccagtgtctg ttctctctat ctcccaccg gtgtccccc
1741 gcagctggg gtctgacaat acctcgagcc acaaccgacc agatgccagg gaccacgga
1801 gcccttatga catcagcaat acagactact tcttcccagc atagctggct ggggtgcacc
1861 agcagcctgg accctgtgga tgacaaaaca caaacgggct cagcaaaaag tgcttctcac
1921 tgccatgcca gcttatctca ggggtgtgag gcctttggct tcacggaaga gccttgcgga
1981 aggttctacg ccaggggaaa atcagcctgc tccagctgtt cagctggttg aggtttcaaa
2041 cctcccttcc caaatgcccc gcttaaaggg gttagagtga acttgggcca ctgtgaagag
2101 aaccatatca agactctttg gacactcaca cggacactca aaagctgggc aggttggtgg
2161 gggcctcggt gtggagaagc ggctggcagc ccacccctca acacctctgc acaagctgca
2221 cctcaggcca ggtgggatgg atttccagcc aaagcctcct ccagccgcca tgctcctggc
2281 ccactgcatc gtttcatctt ccaactcaaa ctcttaaaac ccaagtgcc ttagcaaat
2341 ctgtttttct aggcctgggg acggtcttta cttaaacgcc aaggcctggg ggaagaagct
2401 ctctctctcc ttctctccct acagttcaaa aacagctgag ggtgagtggg tgaataatac
2461 agtatgtcag ggcctggctg ttttcaacag aattataatt agttcctcat tagcagttt
2521 gcctaaatgt gaatgatgat cctaggcatt tgctgaatac agaggcaact gcattggctt
2581 tgggttgagc gacctcaggt gagaagcaga ggaaggagag gagagggcca cagggtctct
2641 accatccctc gtagagtggg agctgagtgg gggatcacag cctctgaaaa ccaatgttct
2701 ctcttctcca cctcccacaa aggagagcta gcagcaggga gggcttctgc cattctgag
2761 atcaaaaacg ttttactgca gctttgtttg ttgtcagctg aacctgggta actagggag
2821 ataataatga ggaagacaat gtgaaaagaa aaatgagcct ggcaagaatg cgtttaaact
2881 tgggttttaa aaaactgctg actgttttct cttgagaggg tggaaatatc aatattcgct
2941 gtgtcagcat agaagtaact tacttaggtg tgggggaagc accataactt tgttagccc
3001 aaaaccaagt caagtgaaaa aggaggaaga gaaaaaatat tttcctgcca ggcattggag
3061 cccacgcatc tcgggaggtc gaggcaggag gatcacttga gtccagaagt ttgagatcag
3121 cctgggcaat gtgataaaac ccatctctca caaaaagcat aaaaattagc caagtgtggt
3181 agagtgtgcc tgaagtccca gatacttggg gggctgaggt gggaggatct cttgagcctg
3241 ggaggtcaag gctgcagtga gccgagattg caccactgca ctccagcctg ggggtgacaga
3301 gcaagtgaga ccctgtctc

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(2) INFORMATION FOR SEQ ID NO:2932:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4513 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2932:

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1 ggatcctcct gcaagagaca ccatcctgag gggaaaggag cttctgaacc agcttgaccc
61 aataagaaat tcttgggtgc cgacggggac agcagattca gagcctagag ccgtgcctgc
121 gtccgtagtt tccttctagc ttctttttga tttcaaatca agacttacag ggagagggag
181 cgataaacac aaactctgca agatgccaca aggtcctcct ttgacatccc caacaaagaa
241 ggtgagtagt aatctcccc tttctgcctt gaaccaagtg gcttcagtaa gtttcagggc
301 tcaggagac ctgggcatgc aggtgccgat gaaacagtgg tgaagagact cagtggcagt
361 ggcagtgggg agagcactcg cagcacaggc aaacctctgg cacaagagca aagtcctcac
421 tggagatttc ccaagggtca cttgggagag ggcaggcagc agccaacctc ctctaacttg
481 gctgaagcag gtgaagaaat ggcagaagac gcggtggtgg caaaaaggag tcacacactc
541 cacctggaga cgccttgaag taactgcacg aaatttgagg gtggccaggc agttctacaa
601 cagccgcctc acagggagag ccagaacaca gcaagaactc agatgactgg tagtattacc
661 ttcttcataa tcccaggctt ggggggctgc gatggagtca gaggaaactc agttcagaac
721 atctttgggt tttacaatac aaattaactg gaacgctaaa ttctagcctg ttaatctggt
781 cactgaaaaa aaaaaaattt ttttttttcc aaaaaacata gctttagctt attttttttt
841 tctctttgta aaacttcgtg catgacttca gctttactct tgtcaagaca tgccaagtgc

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901 tgagtcacta ataaagaaaa aagaagtaaa ggaagagtgg ttctgcttct tagcgctagc
 961 ctcaatgacg acctaagctg cacttttccc cctagtgttg tcttgcgatg ctaaaggacg
 1021 tcattgcaca atcttaataa ggtttccaat cagccccacc cgctctggcc ccaccctcac
 1081 cctccaacaa agatttatca aatgtgggat tttcccatga gtctcaatat tagagtctca
 1141 accccaataa aatataggac tggagatgtc tctgaggctc attctgccct cgag
 1195 ggcggtcccc tgtttccccc gctcaggtgc ggcgctgtgg caggaagcca cccctcggt
 1255 cggccggtgc gcggggctgt tgcgccatcc gctccggctt tctgaaccgc accctgggac
 1315 ggcccagaga cgctccagcg cgagttcctc aaatgttttc ctgcgttgcc aggaccgtcc
 1375 gccgtctctga tcatgtgcg agtgggaagt cgcactgaca ctgagccggg ccagagggag
 1435 aggagccgag cgcggcgcgg ggcgaggga ctcgcagtgt gtgtagagag ccgggctcct
 1495 gcggatgggg gctgcccccg gggcctgagc ccgcctgccc gccaccgcgc ccgccccgcc
 1555 cctgccaccc ctgccgcccg gttcccatca gctgtccgc ctctgcggga ccattggagt
 1615 gtacccgagg aggaagcatg ctggccgtcg gctgcgcgct gctggctgcc ctgctggccg
 1675 cgcggggagc ggcgctggcc ccaaggcgcct gccctgcgca ggaggtggca agaggcgtgc
 1735 tgaccagtct gccaggagac agcgtgactc tgacctgccc gggggtagag ccggaagaca
 1795 atcctctctg tcaactgggtg ctacggaagc cggctgcagg ctcccccccc agcagatggg
 1855 ctggcatggg aaggaggctg ctgctgaggt cgggtgcagt ccacgactct ggaaactatt
 1915 catgctaccg ggccggccgc ccaagctggga ctgtgcactt gctggtggat gtccccccg
 1975 aggagcccca gctctcctgc ttccggaaga gccccctcag caatgttgtt tgtgagtggg
 2035 gtccctcgga tcccccattc ctacgacaaa aggtgtgtct ctggtgagg aagtttcaga
 2095 acagtccggc cgaagacttc caggagccgt gccagatttc ccaggagtcc cagaagtctt
 2155 cctgccagtt agcagtcctg gaggggagaca gctctttcta catagtgtcc atgtgcgtcg
 2215 cactgagtgt cgggagcaag ttacgaaaaa ctcaaacctt tcagggttgt ggaatcttgc
 2275 agcctgatcc gcctgccaac atcacagtca ctgccgtggc cagaaaaccc cgctggctca
 2335 gtgtcacctg gcaagacccc cactcctgga actcatcttt ctacagacta cggtttgagc
 2395 tcagatatcg ggctgaacgg tcaaagacat tcacaacatg gatggtcaag gacctccagc
 2455 atcactgtgt catccacgac gcctggagcg gctgaggcca cgtggtgcag ctctcgtccc
 2515 aggaggagtt cgggcaaggc gagtggagcg agtggagccc ggaggccatg ggcacgcctt
 2575 ggacagaatc caggagtctt ccagctgaga acgaggtgtc cacccccctg caggcactta
 2635 ctactaataa agacgatgat aatattctct tcagagattc tgcaaatgct acaagcctcc
 2695 cagtgcagga ttcttcttca gtaccactgc ccacattcct ggttgctgga gggagcctgg
 2755 ccttcggaac gctcctctgc attgccattg ttctgaggtt caagaagacg tggagctgc
 2815 gggctctgaa ggaaggcaag acaagcatgc atccgctgta ctctttgggg cagctggtcc
 2875 cggagaggcc tcgaccaccc ccagtgtctt ttctctcat ctccccaccg gtgtccccc
 2935 gcagcctggg gtctgacaat acctcgagcc acaaccgacc agatgccagg gacccacgga
 2995 gcccttatga catcagcaat acagactact tcttccccag atagctggct ggggtggacc
 3055 agcagcctgg acctgtgga tgacaaaaca caaacgggct cagcaaaaaga tgcttctcac
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 3175 aggttctacg ccaggggaaa atcagcctgc tccagctgtt cagctggttg aggtttcaaa
 3235 cctcccttcc caaatgcccc gcttaaaggg gtttagagtga acttgggcca ctgtgaagag
 3295 aaccatatca agactctttg gacactcaca cggacactca aaagctgggc aggttgggtg
 3355 gggcctcggt gtggagaagc ggctggcagc ccaccctca acacctctgc acaagctgca
 3415 ccctcaggca ggtgggatgg atttccagcc aaagcctcct ccagccgcca tgctcctggc
 3475 ccactgcctc gtttcatctt ccaactcaaa ctcttaaaac ccaagtgcct ttagcaaat
 3535 ctgtttttct aggcctgggg acggctttta cttaaacgcc aaggcctggg ggaagaagct
 3595 ctctcctccc tttcttccct acagttcaaa aacagctgag ggtgagtggg tgaataatac
 3655 agtatgtcag ggcctggctg ttttcaacag aattataatt agttcctcat tagcagtttt
 3715 gcctaaatgt gaatgatgat cctaggcatt tgctgaatac agaggcaact gcattggctt
 3775 tgggttgtag gacctcaggt gagaagcaga ggaaggagag gagaggggca cagggtctct
 3835 accatccctt gtagagtggg agctgagtgg gggatcacag cctctgaaaa ccaatgttct
 3895 ctcttctcca cctcccacaa aggagagcta gcagcaggga gggcttctgc catttctgag
 3955 atcaaaaacg ttttactgca gctttgtttg ttgtcagctg aacctgggta actagggag
 4015 ataattattg ggaagacaat gtgaaaagaa aaatgagcct ggcaagaatg cgtttaaac
 4075 tgggttttaa aaaactgctg actgttttct cttgagaggg tggaaatatc aatatctgct
 4135 gtgtcagcat agaagtaact tacttaggtg tgggggaagc accataactt tgtttagccc
 4195 aaaaccaagt caagtgaaga aggaggaaga gaaaaaatat ttctctgcca ggcattggag
 4255 cccacgcact tcgggaggtc gaggcaggag gatcacttga gtccagaagt ttgagatcag
 4315 cctgggcaat gtgataaaac cccatctcta caaaaagcat aaaaattagc caagtgtggt
 4375 agagtgtgcc tgaagtccca gatacttggg gggctgaggt gggaggatct cttgagcctg
 4435 ggaggtaag gctgcagtga gccgagattg caccactgca ctccagcctg ggggtgacaga
 4495 gcaagtgaga ccctgtctc

- (2) INFORMATION FOR SEQ ID NO:2933:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1533 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2933:

1	ataccttaggc	actaatatag	ttccatatgt	actatgtgta	cctgaaaagt	tgtgtggcaa
61	tcaaatatttc	acaaatagaa	tctgttttta	aatacactaa	gaaagtacct	actttatcct
121	ttaaacaaga	ggtcagcaga	ctttttctac	aaagggtcag	atagtaaaga	ttttacacct
181	tttgtacaat	acaatctcta	tctcatctac	ttagctctgc	cattgttgca	taaaagcagc
241	tgtagatgat	acacaaatgg	gtgaggctgt	attccaaatg	aaacgttatt	tgcaaaaaca
301	ggtggttagat	taaatttggg	cccaaggctt	acttgggaaa	aaaaaagatc	ttttgaaaaa
361	gaaaaaataa	atgaataatt	tttttaaaaa	attgttccct	aggtcatagt	ttgccagccc
421	ctgccctaaa	caaatatttc	ttgaatgcct	actgtgggtg	gtaagatatg	agtaaatacc
481	agggatacac	agagaacaaa	agagaaaaac	tgctattcct	gtgaaacttg	gaagttggag
541	gtaagctatt	taaaataaac	ccacaataaa	gtacttcaca	tagtgacagc	tgtttcttta
601	aatcaaaaact	cactccaaac	aaccaattga	ttcactttgt	aagtttgaat	ttttgtcttc
661	agattctttt	aaagtggggc	cttagtcagg	agcgggtggc	catgcctgta	gtcctagcac
721	tttgggaggg	tgaggcaggg	agatcacttg	aggtcaggag	ttcgagacaa	gcctggccaa
781	catggcgaaa	ccccgtctcc	actgaaaaca	caaaaattag	gctggcatag	tggcatttgc
841	ctgtagtcct	agctactcag	gaggctgagg	caggagaatt	gcttgaacct	gggaggtgaa
901	aattgcagtg	agccgagatc	atgctattgt	actccagcct	gggcaacaaa	gcaagactcg
961	tctcaaaaaa	ataaaaaatta	aaaaaataaa	gtagcctcta	gcctaagata	gcttgagcct
1021	agggtgtgaat	ctactgcctt	actctgatgt	aagcacagta	agtgtggggg	ctgcagggaa
1081	tatccaggag	gaacaataat	ttcagaggct	ctgtctcttc	atgtccttga	cctctgctta
1141	cagcagcaat	acttttactc	agacttcctg	tttctggaac	ttgccttctt	ttttgctgtg
1201	tttatacttc	ccttgtctgt	ggttagataa	gtataaagcc	ctagatctaa	gcttctctgt
1261	cttccctccct	ccctcccttc	ctcttactct	cattcatttc	atacacactg	gctcacacat
1321	ctactctctc	tctctatctc	tctcagaatg	acaattctag	gtacaacttt	tgccatgggt
1381	ttttctttac	ttcaagtctg	ttctggagaa	agtggctatg	ctcaaaatgg	tgagtcattt
1441	ctaacttttc	ttatggattt	tggattatct	gtagcatggt	ttcaggttat	tcagttccct
1501	aagagacctg	agtcaggcac	tgggtttgag	tgc		

(2) INFORMATION FOR SEQ ID NO:2934:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1658 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2934:

1	ctctctctct	atctctctca	gaatgacaat	tctaggtaca	actttttggc	tggttttttc
61	tttacttcaa	gtcgtttctg	gagaaagtgg	ctatgctcaa	aatggagact	tggaagatgc
121	agaactggat	gactactcat	tctcatgcta	tagccagttg	gaagtgaatg	gatcgcagca
181	ttcactgacc	tgtgcttttg	aggaccacga	tgtcaacacc	accaatctgg	aatttgaaat
241	atgtggggcc	ctcgtggagg	taaagtgcct	gaatttcagg	aaactacaag	agatatattt
301	catcgagaca	aagaaattct	tactgattgg	aaagagcaat	atatgtgtga	aggttggaga
361	aaagagtcta	acctgcaaaa	aaatagacct	aaccactata	gttaaaccctg	aggctccttt
421	tgacctgagt	gtcatctatc	gggaaggagc	caatgacttt	gtgggtgacat	ttaatacatc
481	acacttgcaa	aagaagtatg	taaaagtttt	aatgcatgat	gtagcttacc	gccaggaaaa
541	ggatgaaaaa	aaatggacgc	atgtgaattt	atccagcaca	aagctgacac	tctgcagag
601	aaagctccaa	ccggcagcaa	tgtatgagat	taaagttcga	tccatccctg	atcactattt
661	taaaggcttc	tggagtgaat	ggagtccaag	ttattacttc	agaactccag	agatcaataa
721	tagctcaggg	gagatggatc	ctatcttact	aaccatcagc	attttgagtt	ttttctctgt
781	cgctctgttg	gtcatcttgg	cctgtgtgtt	atggaaaaaa	aggattaagc	ctatcgtatg
841	gccaggtctc	cccgatcata	agaagactct	ggaacatctt	tgtaagaaac	caagaaaaaa
901	tttaaatgtg	agtttcaatc	ctgaaagttt	cctggactgc	cagattcata	gggtggatga
961	cattcaagct	agagatgaag	tggaaagttt	tctgcaagat	acgtttcctc	agcaactaga
1021	agaatctgag	aagcagaggg	ttggaggggg	tgtgcagagc	cccaactgcc	catctgagga
1081	tgtagtcgtc	actccagaaa	gctttggaag	agattcatcc	ctcacatgcc	tggttgggaa
1141	tgtcagtga	tgtgacggcc	ctattctctc	ctcttccagg	tccttagact	gcaggagag
1201	tggcaagaat	gggcctcatg	tgtaccagga	cctcctgctt	agccttggga	ctacaaacag
1261	cacgtgccc	cctccatttt	ctctccaatc	tggaaatcctg	acattgaacc	cagttgctca
1321	gggtcagccc	attcttactt	ccctgggac	aaatcaagaa	gaagcatatg	tcaccatgtc
1381	cagcttctac	caaaaaccagt	gaagtgttaag	aaaccacagc	tgaacttacc	gtgagcgaca
1441	aagatgattt	aaaagggaag	tctagagttc	ctagtctccc	tcacagcaca	gagaagacaa
1501	aattagcaaa	acccactac	acagtctgca	agattctgaa	acattgcttt	gaccactctt
1561	cctgagttca	gtggcactca	acatgagtca	agagcatcct	gcttctacca	tgtggatttg
1621	gtcacaaggt	ttaaggtgac	ccaatgattc	agctattt		

(2) INFORMATION FOR SEQ ID NO:2935:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3191 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2935:

```

1  atacctaggc actaatattag ttccatatgt actatgtgta cctgaaaagt tgtgtggcaa
61 tcaaatttttc acaaatagaa tctgttttta aatacactaa gaaagtacct actttatcct
121 ttaaacaaga ggtcagcaga cttttttctac aaaggggtcag atagtaaaga ttttacacct
181 tttgtacaat acaatctcta tctcatctac ttagctctgc cattgttgca taaaagcagc
241 tgtagatgat acacaaatgg gtgaggctgt attccaaatg aaacgttatt tgcaaaaaaca
301 ggtggtagat taaatttgggt cccaaggett acttgggaaa aaaaaagatc ttttgaaaaa
361 gaaaaaataa atgaataatt tttttaaaaa attgttccct aggtcatagt ttgccagccc
421 ctgccctaaa caaataattc ttgaatgcct actgtggtgt gtaagatatg agtaaatacc
481 agggatcacac agagaacaaa agagaaaaac tgctattcct gtgaaacttg gaagttggag
541 gtaagctatt taaaaataaac ccacaataaa gtacttcaca tagtcagac tgtttcttta
601 aatcaaaact cactccaaac aaccaattga ttcactttgt aagtttgaat ttttgtcttc
661 agattctttt aaagtgggcc cttagtcagg agcgggtggc catgcctgta gtcctagcac
721 tttgggaggg agatcacttg aggtcaggag ttcgagacaa gcctggccaa
781 catggcgaaa ccccgctctc actgaaaaaca caaaaattag gctggcatag tggcatttgc
841 ctgtagtcct agctactcag gaggtcagg caggagaatt gcttgaacct gggagggtgaa
901 aattgcagtg agccgagatc atgctattgt actccagcct gggcaacaaa gcaagactcg
961 tctcaaaaaa ataaaaatta aaaaaataaa gtacgctcta gcctaagata gcttgagcct
1021 aggtgtgaat ctactgcctt actctgatgt aagcacagta agtgtggggg ctgcagggaa
1081 tatccaggag gaacaataat ttcagaggct ctgtctcttc atgtccttga cctctgctta
1141 cagcagcaat acttttactc agacttctctg tttctggaac ttgccttctt ttttgtgtgt
1201 tttatacttc cettgtctgt ggtagataa gtataaagcc ctatgcttaa gcttctctgt
1261 ctctctccct cctcctcttc ctcttactct cattcatttc atacacactg gctcacacat
1321 ctactctctc tctctatctc tctcagaatg acaattctag gtacaacttt tggcatgggt
1381 ttttctttac ttcaagtcgt ttctggagaa agtggctatg ctcaaaatgg tgagtcattt
1441 ctaacttttc ttatggattt tggattatct gtagcatggt ttcaggttat tcagttccct
1501 aagagacctg agtcaggcac tgggtttgag tgc
1534 ctctctctct atctctctca gaatgacaat tctaggtaca actttttggca tggttttttc
1594 tttacttcaa tgcgtttctg gagaaagtgg ctatgctcaa aatggagact tggagatgc
1654 agaactggat gactactcat tctcatgcta tagccagttg gaagtgaatg gatcgagca
1714 ttcactgacc tgtgcttttg aggaccaga tgtcaacacc accaatctgg aatttgaat
1774 atgtggggcc ctctggagg taaagtgcct gaatttcagg aaactacaag agatatattt
1834 catcgagaca aagaaattct tactgattgg aaagagcaat atatgtgtga aggttggaga
1894 aaagagtcta acctgcaaaa aaatagacct aaccactata gttaaacctg aggtcctttt
1954 tgacctgagt gtcactctatc gggaaggagc caatgacttt gtggtgacat ttaatacatc
2014 acacttgcaa aagaagtatg taaaagtttt aatgcattat gtagcttacc gccaggaaaa
2074 ggatgaaaaa aatggagcgc atgtgaattt atccagcaca aagctgacac tcctgcagag
2134 aaagctccaa ccggcagcaa tgtatgagat taaagtctga tccatccctg atcactattt
2194 taaaggcttc tggagtgaat ggagtcctaa ttattacttc agaactccag agatcaataa
2254 tagctcaggg gagatggatc ctatcttact aaccatcagc attttgagtt ttttctctgt
2314 cgctctgttg gtcactcttg cctgtgtgtt atggaaaaaa aggattaaag ctatcgtagt
2374 gccagctctc cccgatcata agaagactct ggaacatctt tgtaagaaac caagaaaaaa
2434 tttaaatgtg agtttcaatc ctgaaagttt cctggactgc cagattcata ggttgatga
2494 cattcaagct agagatgaag ttggaagttt tctgcaagat acgtttcttc agcaactaga
2554 agaactctgag aagcagagggc ttggagggga tgtgcagagc cccaactgcc catctgagga
2614 tgtagtcgtc actccagaaa gcttttgaag agattcatcc ctacatgcc tggctgggaa
2674 gtgcagtcca tgtgacgccc ctattctctc ctcttccagg tccctagact gcagggagag
2734 tggcaagaat gggcctcatg tgtaccagga cctcctgctt agccttggga ctacaacag
2794 cacgctgccc cctccatttt ctctccaatc tggaatcctg acattgaacc cagttgtctc
2854 gggctcagccc attcttactt ccctgggagc aaatcaagaa gaagcatatg tcaccatgtc
2914 cagcttctac caaaaccagt gaagtgtaaag aaaccagac tgaacttacc gtgagcgaca
2974 aagatgattt aaaagggag tctagagttc ctagtctccc tcacagcaca gagaagacaa
3034 aattagcaaa accccactac acagtctgca agattctgaa acattgcttt gaccactctt
3094 cctgagttca gtggcactca acatgagtca agagcatcct gcttctacca tgtggatttg
3154 gtcacaaggt ttaaggtgac ccaatgattc agctattt

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(2) INFORMATION FOR SEQ ID NO:2936:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1846 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2936:

```

1  ctacgctctg ctatggctcc cagcagcccc cggccccgcg tgcccgcact cctggctctg

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61 ctctggggctc tgttcccagg acctgggcaat gccagacat ctgtgtcccc ctcaaaagtc
121 atctgtcccc ggggaggctc cgtgctgggtg acatgcagca cctcctgtga ccagcccaag
181 ttgttgggca tagagacccc gttgcctaaa aaggagtgtg tctgtcctgg gaacaaccgg
241 aagggtgtatg aactgagcaa tgtgcaagaa gatagccaac caatgtgtga ttcaaaactgc
301 cctgatgggc agtcaacagc taaaaccttc ctcaccgtgt actggactcc agaaccgggtg
361 gaactggcac cctccccctc ttggcagcca gtgggcaaga accttacctt acgctgccag
421 gtggagggtg gggcaccctc ggccaacctc accgtggtgc tgctccgtgg ggagaaggag
481 ctgaaacggg agccagctgt gggggagccc gctgaggtca cgaccacggt gctggtgagg
541 agagatcacc atggagccaa tttctcgtgc cgcactgaac tggacctgcg gcccacaggg
601 ctggagctgt ttgagaacac ctcggccccc taccagctcc agacctttgt cctgccagcg
661 actccccac aacttgtcag cccccgggtc ctgaggtgg acacgcaggg gacctgggtc
721 tgttccctgg acgggctgtt cccagctctc gaggcccagg tccacctggc actgggggac
781 cagaggttga accccacagt cacctatggc aacgactcct tctggccaa ggccctcagt
841 agtgtgaccg cagaggacga gggcaccacg cggctgacgt gtgcagtaat actggggaac
901 cagagccagg agacactgca gacagtgaac atctacagct ttccggcgcc caactgtatt
961 ctgacgaagc cagaggtctc agaagggacc gagggtgacg tgaagtgtga ggcccaccct
1021 agagccaaagg tgacgtgaa tggggttcca gccagccac tgggcccag ggccagctc
1081 ctgctgaagg ccacccaga ggacaacggg cgcagcttct cctgctctgc aacctggag
1141 gtggccggcc agcttataca caagaaccag acccgggagc ttcgtgtcct gtatggcccc
1201 cgactggacg agagggttg tccgggaaac tggacgtggc cagaaaattc ccagcagact
1261 ccaatgtgct agccttgggg gaaccattg cccgagctca agtgtctaaa ggtggtcact
1321 tccccactgc ccatcgggga atcagtgaac gtcactcgag atcttgaggg cactacctc
1381 tgtcgggcca ggagcactca aggggagggtc acccgcgagg tgacctgaa tgtgtctctc
1441 ccccggtatg agattgtcat catcactgtg gtacgagccg cagtcataat ggcactgca
1501 ggccctcagc cgtacctcta taaccgccag cggaagatca agaaatacag actacaacag
1561 gcccaaaaag ggacccccat gaaaccgaac acacaagcca cgcctccctg aacctatccc
1621 gggacagggc ctcttctctg gccttcccat attggtggca gtggtgccac actgaacaga
1681 gtggaagaca tatgccatgc agctacacct accggccctg ggacggcgga ggacagggca
1741 ttgtcctcag tcagatacaa cagcatttgg ggccatggta cctgcacacc taaaacacta
1801 ggccacgcat ctgatctgta gtcacatgac taagccaaga ggaagg

(2) INFORMATION FOR SEQ ID NO:2937:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1041 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2937:

1 cttaaagatct cctccaggc agcccttggc tggctcctgc gagcccggtg agactgccag
61 agatgtcctc ttctgggttac aggacctga ctgtggccct cttcaccctg atctgctgtc
121 caggatcgga tgagaaggta ttccagggtac acgtgaggcc aaagaagctg gcggttgagc
181 ccaaagggtc cctcgaggtc aactgcagca ccacctgtaa ccagcctgaa gtgggtggtc
241 tggagacctc tctaaataag attctgctgg acgaacaggc tcagtggaaa cattacttgg
301 tctcaaacat ctcccatgac acggtcctcc aatgccactt cacctgtctc ggaagcagg
361 agtcaatgaa ttccaacgtc agcgtgtacc agcctccaag gcagggtcat ctgacactgc
421 aacccacttt ggtggctgtg ggcaagtcc taccattga gtgcagggtg cccaccgtgg
481 agcccctgga cagcctcacc ctcttctctg tccgtggcaa tgagactctg cactatgaga
541 ccttcgggaa ggagccccct gctccgcagg aggccacagc cacattcaac agcacggctg
601 acagagagga tggccaccgc aacttctcct gcctggctgt gctggacttg atgtctcgg
661 gtggaacat ctttcacaaa cactcagccc cgaagatgtt ggagatctat gagcctgtgt
721 cggacagcca gatgggtcat atagtcaagg tgggtgcggg gttgctgtcc ctgttcgtga
781 catctgtcct gctctgtctc atcttcggcc agcacttgcg ccagcagcgg atgggcacct
841 acgggggtgag agcggttgg aggaggctgc cccaggcctt ccggccatag caaccatgag
901 tggcatggcc accaccacgg tggctcactg aactcagtgt gactcctcag ggttgaggtc
961 cagccctggc tgaaggactg tgacaggcag cagagacttg ggacattgcc tttctagcc
1021 cgaatacaaa cacctggact t

(2) INFORMATION FOR SEQ ID NO:2938:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2887 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2938:

1 ctacgcctcg ctatggctcc cagcagcccc cggcccgcg tgcccgcaact cctgggtcctg
61 ctctggggctc tgttcccagg acctgggcaat gccagacat ctgtgtcccc ctcaaaagtc
121 atcctgcccc ggggaggctc cgtgctgggtg acatgcagca cctcctgtga ccagcccaag

181 ttgttgggca tagagacccc gttgcctaaa aaggagttgc tctgcctgg gaacaaccgg
241 aagggtgtatg aactgagcaa tgtgcaagaa gatagccaac caatgtgcta ttcaaactgc
301 cctgatgggc agtcaacagc taaaaccttc ctcaccgtgt actggactcc agaaccgggtg
361 gaactggcac cctcccccctc ttggcagcca gtgggcaaga accttaccct acgtgccag
421 gtggagggtg gggcaccccg ggccaacctc accgtgggtg tgctccgtgg ggagaaggag
481 ctgaaaacggg agccagctgt gggggagccc gctgaggtca cgaccacgtg gctggtgagg
541 agagatcacc atggagccaa tttctcgtgc cgcactgaac tggacctgcy gccccaaggg
601 ctggagctgt ttgagaacac ctcggccccc taccagctcc agacctttgt cctgccagcg
661 actccccac aacttgtcag cccccgggtc cttagaggtg acacgcaggg gacctgggtc
721 tgttccctgg acgggctgtt cccagtctcg gaggccagg tccacctggc actgggggac
781 cagaggttga accccacagt cacctatggc aacgactcct tctcgcccaa ggcctcagtc
841 agtgtgaccg cagaggacga gggcacccag cggctgacgt gtgcagtaac actggggaac
901 cagagccagg agacactgca gacagtgaac atctacagct ttccggcgcc caacgtgatt
961 ctgacgaagc cagaggtctc agaagggacc gaggtgacag tgaagtgtga ggccccacct
1021 agagccaagg tgacgctgaa tggggttcca gccagccac tggggccgag ggcccagctc
1081 ctgctgaagg ccaccccaga ggacaacggg cgcagctctc cctgctctgc aacctgggag
1141 gtggccggcc agcttataca caagaaccag accgggagc ttctgtctct gtatggcccc
1201 cgactggacg agagggattg tccgggaaac tggacgtggc cagaaaattc ccagcagact
1261 ccaattgtgc aggtctgggg gaaccattg cccgagctca agtgtctaaa ggatggcact
1321 ttcccactgc ccatcgggga atcagtgaac gtcactcgag atcttgaggg cacctacctc
1381 tgtcgggcca ggagcactca aggggagggtc acccgcgagg tgacctgaa tgtgctctcc
1441 ccccggtatg agattgtcat catcactgtg gtagcagccg cagtcataat gggcactgca
1501 ggcctcagca cgtacctcta taaccgccag cggaaagatca agaaatacag actacaacag
1561 gcccaaaaag ggaaccccat gaaacccaac acacaagcca cgcctccctg aacctatccc
1621 gggacagggc ctcttctctc gccttcccat attggtggca gtggtgccac actgaacaga
1681 gtggaagaca tatgccatgc agctacacct accggccctg ggacgcggga ggacagggca
1741 ttgtcctcag tcagatacaa cagcatttgg ggccatggta cctgcacacc taaaacacta
1801 gggccacgat ctgatctgta gtcacatgac taagccaaga ggaagg
1847 cttaaagatct cctccagggc agcccttggc tgggtccctgc gagcccggtg agactgccag
1907 agatgtcctc tttcggttac aggaccctga ctgtggccct cttcacccctg atctgtgtc
1967 caggatcgga tgagaaggta ttcgagggtac acgtgaggcc aaagaagctg gcggttgagc
2027 ccaaagggtc cctcgaggtc aactgcagca ccacctgtaa ccagcctgaa gtgggtggtc
2087 tggagacctc tctaaataag attctgctgg acgaacaggc tcagtggaaa cattacttgg
2147 tctcaaacat ctcccatgac acggctcctc aatgccactt cacctgctcc ggaagcagg
2207 agtcaatgaa ttccaacgtc agcgtgtacc agcctccaag gcaggtcatc ctgacactgc
2267 aacccacttt ggtggtgtg ggcaagtcct tcaccattga gtgcagggtg cccaccgtgg
2327 agccctgga cagcctcacc ctcttctctg tccgtggcaa tgagactctg cactatgaga
2387 ccttcgggaa ggcagccctc gctccgagg aggccacagc cacattcaac agcacggctg
2447 acagagagga tggccaccgc aacttctcct gctggacttg atgtctcgcg
2507 gtggcaacat ctttcacaaa cactcagccc cgaagatgtt ggagatctat gagcctgtgt
2567 cggacagcca gatggtcatc atagtacagg tgggtgtcgt gttgtgttcc ctgttctgta
2627 catctgtcct gctctgttcc atcttcggcc agcacttgcg ccagcagcgg atgggacct
2687 acgggggtcg agcggcttgg aggaggctgc cccaggcctt ccggccatag caacctagag
2747 tggcatggcc accaccacgg tggctactgg aactcagttg gactcctcag ggttgaggtc
2807 cagccctggc tgaaggactg tgacaggcag cagagacttg ggacattgcc ttttctagcc
2867 cgaatacaaa cacctggact t

(2) INFORMATION FOR SEQ ID NO:2939:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1739 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2939:

1 aatggccacc atggtaccat ccgtgtgtg gccagggcc tgcaggactc tgcaggctg
61 ctgtctgtc accccagggtg tccaggggca ggagttcct ttgcgggtg agccccagaa
121 ccctgtgtc tctgtggag ggtccctgtt tgtgaactgc agtactgatt gtccagctt
181 tgagaaaatc gccttgagga cgtccctatc aaaggagctg gtggccagtg gcatgggctg
241 ggcagccttc aatctcagca acgtgactgg caacagtcgg atcctctgct cagtgtactg
301 caatggctcc cagataacag gtcctcttaa catcaccgtg tacgggctcc cggagcgtgt
361 ggagctggca cccctgcctc cttggcagcg ggtgggccc aacttcaccc tgcgtgccca
421 agtggagggt gggctgcccc ggaccagcct cacggtgggt ctgcttcgct gggaggagga
481 gctgagccgg cagcccgag tggaggagcc agcggagggt actgccactg tgcaggccag
541 cagagacgac cacggagccc ctttctcatg ccgcacagaa ctggacatgc agccccaggg
601 gctgggactg ttcgtgaaca cctcagcccc ccgcccagtc cgaacctttg tctgcccgt
661 gaccccccg cgcctcgtgg ccccccggtt cttggagggt gaaacgtcgt ggccgggtgga
721 ctgcacccta gacgggcttt ttccagcctc agaggcccg gtctactctg cgctggggga
781 ccagatgctg aatgcgacag tcatgaacca cggggacag ctaacggcca cagccacagc

841 cacggcgcgcg cgccgatcagg aggggtgccc ggagatcgtc tgcaacgtga ccctaggggg
901 cgagagacgg gagggccggg agaacttgac ggtcttttagc ttcctaggac ccattgtgaa
961 cctcagcgag cccaccgccc atgaggggtc cacagtgacc gtgagttgca tggctggggc
1021 tcgagtccag gtcacgctgg acggagtcc ggccgcgcc ccggggcagc cagctcaact
1081 tcagctaaat gctaccgaga gtgacgacgg acgcagcttc ttctgcagtg ccactctcga
1141 ggtggacggc gagttcttgc acaggaacag tagcgtccag ctgcgagtc tgtatggtcc
1201 caaaattgac cgagccacat gccccagca cttgaaatgg aaagataaaa cgagacacgt
1261 gctgcagtgc caagccagg gcaacccgta ccccgagctg cgggtgttga aggaaggctc
1321 cagccgggag gtgccggtgg ggatccggtt ctctgtcaac gtaacacata atggtactta
1381 tcagtcccaa gcgtccagct cagaggcaa atacaccctg gtcgtggtga tggacattga
1441 ggctgggagc tcccactttg tcccgtctt cgtggcggtg ttactgacct tggcggtggt
1501 gactatcgta ctggccttaa tgtacgtctt cagggagcac caacggagcg gcagtacca
1561 tgttagggag gagagcacct atctgcccc cagctctatg cagccgacag aagcaatggg
1621 ggaagaaccg tccagagctg agtgacgctg ggatccggga tcaaagttgg cgggggcttg
1681 gctgtgccct cagattccgc accaataaag cttcaaac ctaaaaaaa aaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2940:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 920 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2940:

1 gcacggagg gacagagacc cgagagccca gccccaccat gacctcgcc gcgcgactcg
61 cgtgtctttt cctcgctgt gtctgccc gcttgctgct ggggggcacc gcgctggcct
121 cggagattgt ggggggccc cgagcgccg cccacgcgtg gcccttcagt gtgtccctgc
181 agctgcgcgg agggcaactc tgcggcgcca ccctgattgc gcccaacttc gtcagtgcg
241 ccgcgcactg cgtggcgaat gtaaacgtcc gcgcgggtgc ggtggtcctg ggagccata
301 acctctcgcg gcgggagccc acccggcagg tgttcgccgt gcagcgatc ttcgaaacg
361 gctacgaccc cgtaaacttg ctcaacgaca tcgtgattct ccagctcaac gggtcggcca
421 ccatcaacgc caacgtgcag gtggcccagc tgccggctca gggacgcgc ctgggcaacg
481 ggtgtgcagt cctggccatg ggctggggcc ttctgggcag gaaccgtggg atcgccagcg
541 tcctgcagga gctcaacgtg acggtggtga cgctcccttg ccgtcgcagc aacgtctgca
601 ctctcgtgag gggccggcag gccggcgtct gtttcgggga ctccggcagc cccttggctt
661 gcaacgggct aatccacgga attgcctcct tcgtccgggg aggctgcgcc tcagggtctt
721 accccgatgc ctttgcctcg gtggcacagt ttgtaaactg gatcgactct atcatccaac
781 gctccgagga caaccctgt cccaccccc gggaaccgga cccggccagc aggaccact
841 gagaagggct gcccggttca cctcagctgc ccacaccac actctccagc atctggcaca
901 ataaacattc tctgttttgt

(2) INFORMATION FOR SEQ ID NO:2941:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5292 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2941:

1 ttgtcagagc cccagctggt gtccaggagc tgaccgtgag cctgggtgaa agtgagttcc
61 ccgttgagg caccagacga ggagaggatg gaaggcctgg ccccaagaa tgagccctga
121 ggttcaggag cggctggagt gagccgccc cagatctccg tccagctgcg ggtcccagag
181 gcctgggtta cactcggagc tcctggggga ggcccttgac gtgctcagtt cccaaacagg
241 aaccctggga aggaccagag aagtgcctat tgcgcagtga gtgcccgaca cagctgcagt
301 tggccggtat cacagggccc tgggtaaaact gaggcaggcg acacagctgc atgtggccgg
361 tatcacaggg ccctgggttaa actgaggcag gcgacacagc tgcatgtggc cggtatcaca
421 gggccctggg taaactgagg caggcgacac agctgcagtgt ggccggtatc acagggccct
481 gggtaaaactg aggcaggcga cacagctgca tgtggccggt atcacggggc cctggataaa
541 cagaggcagg cgaggccacc cccatcaagt ccctcaggtc taggtttggc caggtttgga
601 aaaaacacagc aacgctcggg aaatctgaat ttccggtaag tatatcctgg gcctcatttg
661 gaagagactt agattaaaaa aaaaacgtcg agaccagccc ggccaacacg tgaaaccccg
721 tctctactaa aaatacaaaa aattagccag gcgcagtgt cagcctgtg atcccagcac
781 tctgggaggt gaggcaggcg gatcacccga ggtcagctgt tcaagaccag cctggccgag
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901 tgtaatctca gctattcagg aggtgaggc aggagaatca cttgaacctg ggaggcggag
961 gttgcgctga gccgggatca cgccaccgca ctccagcctg ggcgatagag caagactctg
1021 tctccaaaaa aataaattaa aaaccacaca ttgattatct gacatttgaa tgcgattgtg
1081 catctgaat tttgtctgga ggccccccc gagccaatcc agcgtcttgt ccccttctc
1141 ccccttttca tcaacgcctg tgccagggga gaggaagtgg agggcgctgg ccggccgtgg

1201 ggcaatgcaa cggcctccca gcacagggtc ataagaggag ccgggagggg acggaggggg
1261 agagaccccg gagccccagc cccaccatga ccctcgcccg ccgactcgcg tgtcttttcc
1321 tcgctgtgtt cctgccggcc ttgctgtgtg ggggtgagtt tttgagtcca acctcccgct
1381 gctccctctg tcccggttcc tgttcccacc tctccataga gggccccacc agtgtgggtc
1441 cctcactctc acaggggagg tgccagctgg gacaaggaga ccagaagaga ctgaggttct
1501 gagcggtgaa gccaccacca ggagcccaga gttgggggtt gaaaaccggg gagggggggg
1561 gtggcaggtc gccctctggg ttcaagtcca ggtctgtctg tgccttggag gggcaccgtg
1621 gggagggtccc tttgcctctc cgtgcctcag tttctctatc tgaacaacag ggggtggaac
1681 ggccccgacg ccgtgggttc ccggtggggg atccagaggc ccggtggccg ggaggggaca
1741 ggctccttgg caggcactca gcacccgcac ccggtgtgtc cccaggcacc gcgctggcct
1801 cggagattgt ggggggcccg cgagcgcggc cccacgcgtg gcccttcatg gtgtccctgc
1861 agctgcgcgg aggccacttc tgcggcgcca ccctgattgc gcccacttc gtcattgtcg
1921 ccgcgcaact cgtggcgaa gtgtgagtag ccgggagtg ggcgcgcccg ctcgggagcc
1981 gcgtcccggt ctgtgaggtg ggtgggggga ggcggggggc ggggctgctg gcgggggggg
2041 gtccgtccag gggccgcggg gccctcagag cacttcgcgc ctcaggcccg tcgcccggat
2101 gggagacaaa ggccggggtg agccccgacc ccggggggcg cccctgagcc ccgctctctc
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2221 gggggagccc acccggcagg tgttcgccgt gcagcgcac ttcgaaaaac gctacgaccc
2281 cgtaaatctg ctcaacgaca tctgtattct ccaggtgcgg ccggggcggg gggggcgagg
2341 ggcggaggcc agagggcctg ggaggggtga ggcctgggga ggtgtgagc tgcacggag
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2761 tctgtgcaat caacaaaact tactgagaag ggaggcccg atctgtgtc aatcatcaaa
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2881 ccccgatctg ttgtcaatca acaacttac tgagaaggga ggcggcgatc tgctgtcaat
2941 caacaaaact actgagattc tgtgtgtctc tccattcacc agtcctgtgg cccagggcag
3001 gggcgcgctc tgtctttggg aaaaggggca aaagtcccca cctttccacc cctgtcccg
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3121 cactttggga ggctgaggcg ggtggatcac gaggtcaggt gttcgagacc agcctgagca
3181 acatagttaa acccgctctc tactaaaata cacaacaaaa aaattagccg agtgtggtt
3241 tgggtgcctg taatgcaac tactcaggag gctgaggaa gagaatcgct tgaaccccg
3301 aggcggagat tgagtgagc tgagatcaca ccactgcact ccagcctggg tctcaaaaa
3361 aaaaaaaaag attcctccct gggaagggtt agaggagag tttcctgtgc actaagttt
3421 ctcatagctc tcacccagtg cagtggcgcg atcgcagctc actacacctc catctcctg
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3601 taaatatata ttttatttaa ataaaaata taattattat aattatttta taattataa
3661 aatatttata taattataaa tatcatttat aattataata tttattattt tataaaaaa
3721 taaatatata atatttttat aaataataaa atatatatat acacacatat
3781 atatatattt tttagacaa gtctcgctct gtcggccagg ctggagcgca gtgcacaatc
3841 tcaactactg cacctcggcc tcccagggtc aagcgattct cctgcctcag cctcccagg
3901 agctgggact acagggcgcc gccaccagc ctggctaatt tttgggtatt gtagtagaga
3961 cgggggttaa ccatgttagc caggatgggt ttgatctcct gaccttttga ttggccacc
4021 tcagcctccc aaaatgctg gattataggc gtgagcaccg cacctggcaa tttttttta
4081 ttatttttgt agacatggg ctttgccaca ttgcccaggc tggtcttgaa tgcctggcct
4141 ggcctaagtg atcctcctgc ctgcctctcc caaagtgtg ggcttacaag catgagccac
4201 cgcgcccggc tgtagtttt ttgttaactg agcacctact gcttctgca ctcaagccac
4261 atccagggac aacctccaac gccctgagcc ttggtgacgg ctcccactct acagatggg
4321 aaaccgaggc ttgccttggg gagcagagtg atcctgacct atcctgacct gcaggatccc
4381 agaaccacag tgaacctga gatggggaaa ctgaggcccg gagaggggag ggtcatcatc
4441 actgcccgtg gtgacgcgct gacgatctgt cccaccgccc acagctcaac gggtcggcca
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4561 ggggtgcagt cctggccatg ggtggggggc ttctgggcag gaaccgtggg atcgccagc
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5041 ccctgtccccc accccgggga cccgaccggg gccagcagga cccactgaga agggctccc
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5161 tttgtagaa tgtgtttgat gctccttggc tgtgtgattg ggtgtgaaa atggtcagta
5221 ggtcgggctg ggtggctcac acctgtaate ccagcacttt gggaggttga ggcaggcgga

5281 tcacttgagc tc

(2) INFORMATION FOR SEQ ID NO:2942:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6212 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2942:

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1 gcacggaggc gcagagaccc cggagcccca gccccaccat gaccctcggc cgcgcactcg
61 cgtgtctttt cctcgcctgt gtctgcctgt ccttgcctgt ggggggcacc gcgctggcct
121 cggagattgt ggggggcggc cgagcgcggc cccacgcgtg gcccttcacg gtgtccctgc
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241 ccgcgcactg cgtggcgaat gtaaactgcc gcgcgggtgc ggtggctcctg ggagcccata
301 acctctcgcg gcgggagccc acccggcagg tgttcgcctg gcagcgcacg ttcgaaaacg
361 gctacgaccc cgtaaaactg ctcaacgaca tcgtgattct ccagctcaac gggtcggcca
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481 gggtcgactg cctggccatg ggctggggcc ttctgggcag gaaccgtggg atcgccagcg
541 tcttcgagga gctcaacgtg acggtgggtg cgtccctctg ccgtcgcagc aacgtctgca
601 ctctcgtgag gggcgcggcg gccggcgtct gtttcgggga ctccggcagc ccttgggtct
661 gcaacgggct aatccacgga attgcctcct tcgtccgggg aggtcgcgcc tcagggtcct
721 accccgatgc ctttgcccg gtggcacagt ttgtaaactg gatcgactct atcatccaac
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3441 gttaaatgag atcctgcagg gaggccccga tctgctgtca atcaacaac ttactgagaa

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3501 gggaggccccc gatctgttgt caatcaacaa acttactgag aagggaggcc ccgatctgtt
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3681 tgctgtcaat caaccaaaact tactgagaag ggaggccccc atctgtgtgc aatcatcaaa
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3801 ccccgatctg ttgtcaatca acaaacttac tgagaaggga ggccccgatc tgctgtcaat
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3981 gcttcagcgt ttggttattt cctgggcgcc gggcccgctg gctcaggcct gtcatccag
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4701 atatatattt tttagacaaa gtctgcctct gtcgcccagg ctggagcgca gtgcacaatc
4761 tcaactcactg cactcccgcc tcccagggtc aagcgattct cctgcctcag cctccaggt
4821 agctgggact acaggcgccc gccaccacgc ctggctaatt tttggattg ttagtagaga
4881 cggggtttaa ccatgttagc caggatggtc ttgatctcct gaccttttga ttggcccacc
4941 tcagcctccc aaaatgtctg gattataggc gtgagcaccg cacctggcaa tttttttta
5001 ttatttttgt agacatgggg ctttgccaca ttgcccaggc tgggtcttga tgccctggc
5061 ggcctaagtg atcctcctgc ctgcgccctc caaagtgtcg ggcttacaag catgagccac
5121 cgcgcccggc tgtagttttt ttgttaactg agcacctact gcttctctga ctcaggccac
5181 atccagggac aaacctcaac gccctgagcc ttggtgacgg ctcccactct acagatgggg
5241 aaaccgaggc ttgccttggg gagcagagtg tgggttgggt atcctgccct gcaggatccc
5301 agaaccacag tggaacctga gatggggaaa ctgaggcccc gagaggggag ggtcatcatc
5361 actgcccctg gtgacgcgtg gacgatctgt ccccacgcgc acagctcaac ggtcggcca
5421 ccatcaacgc caacgtgcag gtggcccagc tgccggctca gggacggcgc ctgggcaacg
5481 ggggtcagtg cctggccatg ggctggggcc ttctgggcag gaaccgtggg atcgccagcg
5541 tcctgcagga gctcaacgtg acggtgggtg cgtccctctg cgtcgcagc aacgtctgca
5601 ctctcgtgag gggccggcag gccggcgtct gtttcgtacg tgccctgggt gtccctctgc
5661 tccccaccgc ctcccagccc ggtactgcag caacaggcac cgtggctaga ccctaggatg
5721 ggacttccca accctgacac gtcggcgggc aggtgggcag ggcctcgag tccagcttcc
5781 ccaccttgtc tgcctccaca ggggactcc ggcagcccct tggctctgca cgggctaacc
5841 cacggaattg cctccttctg ccggggaggc tgccctcag ggctctaccc cgatgccttt
5901 gccccgggtg cacagtttgt aaactggatc gactctatca tccaacgctc cgaggacaac
5961 cctgttcccc acccccggga cccggaccgc gccagcagga cccactgaga agggctgccc
6021 gggtcacctc agctgccac acccacactc tccagcatct ggcacaataa acattctctg
6081 tttttagtaa tgtgtttgat gtccttggc tgtgtgattg ggtgttgaat atggtcagta
6141 ggtcgggcgt ggtggctcac acctgtaatc ccagcacttt gggaggttga ggcaggcgga
6201 tcacttgagc tc

(2) INFORMATION FOR SEQ ID NO:2943:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1755 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2943:

1 ctattgcagt atctttcagc ttccagtctt atctgaagac cccggcacca aagtgaccag
61 gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg
121 tccgggactg cagaccggtg gcgatggcca ctctcccagc agcagaaaacc tggatagacg
181 ggggtggagg cgtgggtgca gacgcogtga acctgaccgc ctcgctagct gccggggcgg
241 ccacgggggc agttgagact ggggtggctgc aactgctgga ccaagctggc aaacctctct
301 cctccccttc cgcgctggga ctgcctgttg ctccccccgc gccctcccag ccctgggcca
361 acctcaccaa ccagttctgt cagccgtcct ggcgcacgcg gctctggtcc ctggcgatg
421 actgttcggt ggcagtgga gtttgggaa atctcatcgt catctggatc atcctggccc
481 ataagcgcat gaggaactgc accaactact tccttgtgaa cctggctttc tccagcgct
541 ccatggccgc cttcaacacg ttggtcaatt tcatctacgc gcttcatagc gactgggtact
601 ttggcgccaa ctactgccgc ttccagaact tctttcctat cacagctgtg ttcggcagca
661 tctactccat cagggccatt gcggtggaca ggtatatggc tattattgat cccttgaaac
721 ccagactgtc tgctacagca accaagattg tcattggaag tatttggatt ctgacttttc
781 tacttgccct cctcagtgat ctttattcca aaaccaaagt catgccaggc cgtactctct

841 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta
 901 tactgtgtga ctgtttccca ttgtcatca tgggtattac atacaccatt gttggaatta
 961 ctctctgggg aggagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg
 1021 ccaaaagaaa ggttgtcaaa atgatgatta ttgttgcac gacatttgct atctgctggc
 1081 tgccctatca tatttacttc attctcactg caatctatca acaactaaat agatggaaat
 1141 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
 1201 ccatcatcta ctgctgtctg aataaaagat ttcgagctgg cttcaagaga gcatttcgct
 1261 ggtgtccttt catcaaaagt tccagctatg atgagctaga gctcaagacc accagggttc
 1321 atccaaaccg gcaaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt
 1381 ttgaccccaa cgatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag
 1441 acccaagttt caatggctgc tctcgcagga attccaaatc tgcctccgcc acttcaagtt
 1501 tcataagctc accctatacc tctgtggatg aatattctta attccatttc ctgaggtaaa
 1561 agattagtgt gagaccatca tggtgccagt ctaggacccc attctcctat ttatcagtc
 1621 ttctctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga
 1681 aaggtagtgt ataaatgtga caaagacact aataacatgt tagcctccac ccaaataaa
 1741 atgggcttta aattt

(2) INFORMATION FOR SEQ ID NO:2944:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 600 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2944:

1 ctgcagaccg gtggcgatgg ccatcctccc agcagcagaa acctggatag acgggggtgg
 61 aggcgtgggt gcagacgccg tgaacctgac cgctctgcta gctgccgggg cggccacggg
 121 ggcagttgag actgggtggc tgcaactgct ggaccaagct ggcaacctct cctcctcccc
 181 ttccgcgctg ggactgcctg tgcgttcccc cgcgccctcc cagccctggg ccaacctcac
 241 caaccagttc gtgcagccgt cctggcgatg cgcgctctgg tccctggcgt atggtgtggg
 301 ggtggcagtg gcagtttttg gaaatctcat cgtcatctgg atcatcctgg cccacaagcg
 361 catgaggact gtcaccaact acttccttgt gaacctgggt ttctccgacg cctccatggc
 421 cgccttcac acgttggtca atttcatcta cgcgcttcat agcgagtggg actttggcgc
 481 caactactgc cgcttccaga acttctttcc tatcacagct gtgttcgcca gcactactc
 541 catgacggcc attgcggtgg acaggtgagg agaggacaga cagagaggaa agaggagaaa

(2) INFORMATION FOR SEQ ID NO:2945:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 227 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2945:

1 ggtatatggc tattattgat cccttgaaac ccagactgtc tgctacagca accaagattg
 61 tcattggaag tatttggatt cttagctttc tacttgcttt ccctcagttg ctttattcca
 121 aaaccaaagt catgccaggc cgtactctct gctttgtgca atggccagaa ggtcccaaac
 181 aacatttcac gtaagttaat tctctattat ggttttcaat tcagttt

(2) INFORMATION FOR SEQ ID NO:2946:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 201 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2946:

1 catgtgtttt tcttattttt catagttacc atattatcgt cattatactg gtgtactgtt
 61 tcccattgct catcatgggt attacatata ccattgttgg aattactctc tggggaggag
 121 aaatcccagg agatacctgt gacaagtatc atgagcagct aaaggccaaa agaaaggtag
 181 tgggtccatgt tgtttaccta g

(2) INFORMATION FOR SEQ ID NO:2947:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 255 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2947:

1 caaatgactt tttctttata ggttgctaaa atgatgatta ttgttgatcat gacatttgct
61 atctgctggc tgccctatca ttttacttc attctcactg caatctatca acaactaaat
121 agatggaaat acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc
181 atgtacaatc ccatcatcta ctgctgtctg aataaaaggt aaaaacaaa ctacgaaatg
241 caagttgctt gtcac

(2) INFORMATION FOR SEQ ID NO:2948:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 449 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2948:

1 aaaataactt ttctttctgt ggctgcttt tcctcagatt tcgagctggc ttcaagagag
61 catttcgctg gtgtcctttc atcaaagttt ccagctatga tgagctagag ctcaagacca
121 ccaggtttca tccaaaccgg caaagcagta tgtacaccgt gaccagaatg gattccatga
181 cagtcgtggt tgaccccaac gatgcagaca ccaccaggtc cagtcggaag aaaagagcaa
241 cgccaagaga cccaagtttc aatggctgct ctgcaggaa ttccaaatct gcctccgcca
301 cttcaagttt cataagctca ccctataacct ctgtggatga atattcttaa ttccatttcc
361 tgaggtaaaa gattagtgtg agaccatcat ggtgccagtc taggacccca ttctcctatt
421 tatcagtcct gtcctatata ccctctaga

(2) INFORMATION FOR SEQ ID NO:2949:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3487 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2949:

1 ctgcagaccg gtggcgatgg ccacccctccc agcagcagaa acctggatag acgggggtgg
61 aggcgtgggt gcagacgccg tgaacctgac cgcctcgcta gctgccgggg cggccacggg
121 ggcagttgag actgggtggc tgcaactgct ggaccaagct ggcaacctct cctcctcccc
181 ttccgcgctg ggactgctg tgcgttcccc cgcgccctcc cagccctggg ccaacctcac
241 caaccagttc gtgcagccgt cctggcgtat cgcgctctgg tccttgccgt atggtgtggg
301 ggtggcagtg gcagttttgg gaaatctcat cgtcatctgg atcatcctgg cccacaagcg
361 catgaggact gtcaccaact acttccttgt gaacctggct ttctcgcagc cctccatggc
421 cgccttcaac acgttggtca atttcatcta cgcgcttcat agcagatggg actttggcgc
481 caactactgc cgcttcaga acttctttcc tatcacagct gtgttcgcca gcatctactc
541 catgacggcc attgcggtgg acaggtgagg agaggacaga cagagaggaa agaggagaaa
601 ctattgcagt atctttcagc ttccagtctt atctgaagac cccggcacca aagtgaccag
661 gaggcagaga agaacttcag aggagctcgc tcttgggctg cccgtgggtg agtgggaggg
721 tccgggactg cagaccgggt gcgatggcca ctctccagc agcagaaacc tggatagacg
781 ggggtggagg cgtgggtgca gacgccgtga acctgaccgc ctgcgtagct gccggggcgg
841 ccacgggggc agttgagact ggggtgctgc aactgctgga ccaagctggc aacctctcct
901 cctcccttc cgcgctggga ctgcctgtgg ctcccccgc gccctccag ccctggcca
961 acctcaccaa ccagttcgtg cagccgtcct ggccgcatcg gctctggtcc ctggcgatg
1021 gtgtgggtgg ggcagtgcca gttttgggaa atctcatcgt catctggatc atcctggccc
1081 acaagcgcat gaggactgtc accaactact tccttgtgaa cctggctttc tccgacgect
1141 ccattggccgc cttcaacacg ttggtcaatt tcatctacgc gcttcatagc gattggtact
1201 ttggcgccaa ctactgccgc ttccagaact tcttctctat cacagctgtg ttcgccagca
1261 tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat cccttgaaac
1321 ccagactgtc tgctacagca accaagattg tcattggaag tatttgattt ctgactttc
1381 tacttgctct ccctcagtg ctttattcca aaaccaaagt catgccaggc cgtactctct
1441 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta
1501 tactggtgta ctggttccca ttgctcatca tgggtattac atacaccatt gttggaatta
1561 ctctctgggg aggagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg
1621 ccaaaagaaa gttgtcmeta atgatgatta ttgttgatcat gacatttgct atctgctggc
1681 tgccctatca ttttacttc attctcactg caatctatca acaactaaat agatggaat
1741 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
1801 ccatcatcta ctgctgtctg aataaaaagat ttcgagctgg cttcaagaga gcatctcgct
1861 ggtgtccttt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggtttc
1921 atccaaaccg gcaaaagcagt atgtacaccg tgaccagaat ggagtcctatg acagtcgtgt
1981 ttgaccccaa cgatgcagac accaccaggc ccagtcggaa gaaaagagca acgccaagag
2041 acccaagttt caatggctgc tctcgaggga attccaaatc tgcctccgccc acttcaagtt
2101 tcataagctc accctatacc tctgtggatg aatattctta attccatttc ctgaggtaaa
2161 agattagtgt gagaccatca tgggtgccagt ctaggacccc attctcctat ttatcagtc

2221 tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga
 2281 aaggtagtggt ataaatgtga caaagacact aataacatgt tagcctccac ccaaataaa
 2341 atgggcttta aattt
 2356 ggtatatggc tattattgat cccttgaaac ccagactgtc tgctacagca accaagattg
 2416 tcatttgaag tatttggatt ctagcatttc tacttgccct ccctcagtggt ctttattcca
 2476 aaaccaaagt catgccaggc cgtactctct gctttgtgca atggccagaa ggtcccaaac
 2536 aacatttcac gtaagttaat tctctattat ggttttcaat tcagttt
 2583 catgtgtttt tcttattttt catagttaacc atattatcgt cattatactg gtgtactggt
 2643 tcccattgct catcatgggt attacatata ccattgttgg aattactctc tggggaggag
 2703 aaatcccagg agatacctgt gacaagtatc atgagcagct aaaggccaaa agaaaggtag
 2763 tgggtccatgt tgtttaccta g
 2784 caaatgactt tttctttata ggttgtcaaa atgatgatta ttgttgtcat gacatttgct
 2844 atctgtctggc tgccctatca tatttacttc attctcactg caatctatca acaactaaat
 2904 agatggaaat acatccagca ggtctacctg cgtagctttt ggctggcaat gagctcaacc
 2964 atgtacaatc ccatcatcta ctgctgtctg aataaaaggt aaaaacaaaa ctacgaaatg
 3024 caagtgtgct gtcac
 3039 aaaataactt ttctttctgt ggcttgcctt tcctcagatt tcgagctggc ttcaagagag
 3099 catttcgctg gtgtcctttc atcaaagttt ccagctatga tgagctagag ctcaagacca
 3159 ccaggtttca tccaaaccgg caaagcagta tgtacaccgt gaccagaatg gagtccatga
 3219 cagtcgtggt tgaccccaac gatgcagaca ccaccaggctc cagtcggaag aaaagagcaa
 3279 cgccaagaga cccaagtttc aatggctgct ctgcgaggaa ttccaaatct gctccgcca
 3339 cttcaagttt cataagctca ccctatacct ctgtggatga atattcttaa ttccatttcc
 3399 tgaggtaaaa gattagtgtg agaccatcat ggtgccagtc taggacccca ttctctatt
 3459 tatcagctct gtccctatata ccctctaga

(2) INFORMATION FOR SEQ ID NO:2950:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2206 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2950:

1 ctagtctttc agccttcagg ctgtttttgg cttgaagctc tcttggcctc ctagtttcta
 61 cctaatacatg tccttggtgg aggccatcag cctctggaat gaagggggtg tggcagcgga
 121 caagaaggac tggaagggag ccctggatgc cttcagtgcc gtccaggacc cccactccc
 181 gatttgcttc aacattggct gcatgtacac tatcctgaag aacatgactg aagcagagaa
 241 ggcctttacc agaagcatta accgagacaa gcacttgcca gtggttact tccaacgagg
 301 gatgctctac taccagacag agaaatatga tttggctatc aaagacctta aagaagcctt
 361 gattcagctt cgagggaacc agctgataga ctataagatc ctggggctcc agttcaagct
 421 gtttgctgtg gaggtgttat ataacattgc tttcatgtat gccaaagaag aggaatggaa
 481 aaaagctgaa gaacagttag cattggccac gagcatgaag tctgagccca gacattccaa
 541 aatcgacaag gcatggaggt gtgtctggaa gcagaagcta tatgagccag tgggtatccc
 601 tgtgggcaag ctgttttcgac caaatgagag acaagtggct cagctggcca agaagatta
 661 cctaggcaag gcgacggctg tggcatctgt ggtggatcaa gacagtttct ctgggtttgc
 721 ccctctgcaa ccacaggcag ctgagcctcc acccagaccg aaaacccag agatcttcag
 781 ggcctctgaa ggggaggctc accgtgtgct atttgggttt gtgcctgaga caaaagaaga
 841 gctccaggtc atgccaggga acattgtcct tgtcttgaag aaggggcaatg ataactgggc
 901 cacggctcatg ttcaacgggc agaaggggct tgtccctgc aactaccttg aaccagttga
 961 gttgcggtatc caccctcagc agcagcccca ggaggaaaag tctccgcagt ccgacatccc
 1021 agctcctcct agttccaaaag cccctggaaa accccagctg tcaccaggcc agaaacaaaa
 1081 agaagagcct aaggaagtga agctcagtggt tcccattgcc tacacactca aggtgcacta
 1141 caagtacacg gtatgcatga agactcagcc cgggctcccc tacagccagg tccgggacat
 1201 ggtgtctaag aaactggagc tccggctgga acacactaag ctgagctatc ggcctcgga
 1261 cagcaatgag ctggtgcccc tttcagaaga cagcatgaag gatgcctggg gccaggtgaa
 1321 aaactactgc ctgactctgt ggtgtgagaa cacagtgggt gaccaaggct ttccagatga
 1381 acccaaggaa agtgaaaaag ctgatgctaa taaccagaca acagaacctc agcttaagaa
 1441 aggcagccaa gtggaggcac tcttcagtta tgaggctacc caaccaggag acctggagtt
 1501 tcaggaaggg gatataatcc tgggtgtatc aaaggtgaat gaagaatggc tgggaaggga
 1561 gtgcaaaggg aaggtgggca ttttcccaa agtttttgtt gaagactgcy caactacaga
 1621 tttggaaagc actcggagag aagcttagga tgtttcacia actacaaagc tgaagaaaat
 1681 gaagccctat tacttgtttg taagatttag caccctctc ctgtatactg tactgagaca
 1741 ttacagtttg gaagtgttaa ctatttattc cctgttaaaa ttaacctac tagacaatga
 1801 tgtgagtacc caggatgatt tcctggggca cagtgggtga ggagatgggg acaggtgaat
 1861 ggaggaggtta ggggagagga aaagtggatg gaagtgtctg gaaagggcac gagagagtct

1921 tccaggtact gatcctgttt cttgctctga gtgctagcta gccagctgtg ttcacactgt
1981 aaacattcat caagctgtac atttggtgca cttttctgtg tcataccaca ataaaaaaaa
2041 acctatcatc atcttataaaa aacaagacac ccaagtccag gcccaaggag taagtacaaa
2101 tattcctgtt tctgaacat tactgtaatt ggctcttaag gcttgaagta accttatagg
2161 ttactcataa ggcatatata aataaacttg tttgttttct tttttc

(2) INFORMATION FOR SEQ ID NO:2951:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2206 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2951:

1 ctagtctttc agccttcagg ctgttttttg cttgaagctc tcttgccctc ctagtcttcta
61 cctaatacatg tccctggtgg aggccatcag cctctggaat gaagggtgct tggcagcggg
121 caagaaggac tgggaaggag ccctggatgc cttcagtgcc gtccaggacc cccactcccg
181 gatttgcttc aacattggct gcatgtacac tatcctgaag aacatgactg aagcagagaa
241 ggcctttacc agaagcatta accgagacaa gcacttggca gtggcttact tccaacgagg
301 gatgctctac taccagacag agaaatatga tttggctatc aaagacctta aagaagcctt
361 gattcagctt cgagggaacc agctgataga ctataagatc ctggggctcc agttcaagct
421 gtttgccctg gaggtgttat ataacattgc tttcatgtat gccaagaagg aggaatggaa
481 aaaagctgaa gaacagttag cattggccac gagcatgaag tctgagccca gacattccaa
541 aatcgacaag gcgatggagt gtgtctggaa gcagaagcta tatgagccag tggatgatcc
601 tgtgggcaag ctgtttcgac caaatgagag acaagtggct cagctggcca agaaggatta
661 cctaggcaag gcgacggctg tggcatctgt ggtggatcaa gacagtctct ctgggtttgc
721 ccctctgcaa ccacagggcag ctgagcctcc acccagaccg aaaaccccag agatcttcag
781 ggctctggaa ggggaggctc accgtgtgct atttggtttt gtgctgaga caaaaagaaga
841 gctccaggct atgccaggga acattgtctt tgtcttgaag aagggcaatg ataactgggc
901 cagggctcatg ttcaacgggc agaaggggct tgttccctgc aactaccttg aaccagttga
961 gtgcggtatc caccctcagc agcagcccca ggaggaaaagc tctccgcagt ccgacatccc
1021 agctcctcct agttccaaag cccctggaaa accccagctg tcaccaggcc agaaacaaaa
1081 agaagagcct aaggaaagta agctcagtg tcccatgccc tacacactca aggtgcacta
1141 caagtacacg gtagtcatga agactcagcc cgggctcccc tacagccagg tccgggacat
1201 ggtgtctaaag aaactggagc tccggctgga acacactaag ctgagctatc ggctcggga
1261 cagcaatgag ctggtgcccc ttccagaaga cagcatgaag gatgcctggg gccaggtgaa
1321 aaactactgc ctgactctgt ggtgtgagaa cacagtgggt gaccaaggct ttccagatga
1381 acccaaggaa agtgaaaaag ctgatgctaa taaccagaca acagaacctc agcttaagaa
1441 aggcagccaa gtggaggcac tcttcagtta tgaggctacc caaccagagg acctggagtt
1501 tcaggaaggg gatataatcc tgggtgtatc aaaggtgaat gaagaatggc tggaaagggg
1561 gtgcaaaggg aaggtgggca ttttcccaa agtttttgtt gaagactgcg caactacaga
1621 tttggaaaagc actcggagag aagtctagga tgtttcaca actacaaagc tgaagaaaat
1681 gaagccctat tacttgtttg taagatttag caccctctg ctgtatactg tactgagaca
1741 ttacagtttg gaagtgttaa ctatttatc cctgttaaaa ttaacctac tagacaatga
1801 tgtgagtacc caggatgatt tcttggggca cagtgggtga ggagatggg acaggtgaat
1861 ggaggagtta ggggagagga aaagtggatg gaagtgtctg gaaagggcac gagagagct
1921 tccaggtact gatcctgttt cttgctctga gtgctagcta gccagctgtg ttcacactgt
1981 aaacattcat caagctgtac atttggtgca cttttctgtg tcataccaca ataaaaaaaa
2041 acctatcatc atcttataaaa aacaagacac ccaagtccag gcccaaggag taagtacaaa
2101 tattcctgtt tctgaacat tactgtaatt ggctcttaag gcttgaagta accttatagg
2161 ttactcataa ggcatatata aataaacttg tttgttttct tttttc

(2) INFORMATION FOR SEQ ID NO:2952:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 273 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2952:

1 gcagagctgg gcaccacagg gagctaggct ctgtgagccg tggctcatct cacacctcct
61 cactgccttg catcatggcc atgtctggac ctttctctcc tcaggccttt accagaagca
121 ttaaccgaga caagcacttg gcagtggcct acttccaacg aggatgctc tactaccaga
181 cagagaagta agtggttcaa tgttgacca actggaggat ttccagagaa aacccaaggg
241 gtctcagtg gtgctgagc agt

(2) INFORMATION FOR SEQ ID NO:2953:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 420 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2953:

```
1 ggtcagaagg aactgaaagg cttctgtgcc cagtgaagata gctggggaag ggagaagcag
61 actcacattt tatgctgcat ttatttctcc atccactaga ctgctgattt tctccctctg
121 tcctggagat atgatttggc tatcaaaagac cttaaagaag ccttgattca gcttcgaggg
181 aaccagctga tagactataa gatcctgggg ctccagttca agctgtttgc ctgtgaggta
241 aggagaacag ggcctggctg ggcaggaggg gatcatggct ggatggatgg ctgacagtca
301 gatgcacagt gatctgttga cacctccagg agcttgaaa agccatttct cctctgcctt
361 gagactcaga ttttcttga agaaaagact gagatggatt atttcaggct catcaaggca
```

(2) INFORMATION FOR SEQ ID NO:2954:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 780 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2954:

```
1 ttccttgcca ccttgatttg gagtagtctc aagttttatg tttgcggtct gtacttttct
61 aggtgttata taacattgct ttcattgtat ccaagaagga ggaatggaaa aaagtctgaag
121 aacagttagc attggccacg agcatgaagt ctgagcccag acattccaaa atcgacaagg
181 cgatggagtg tgtctgggta agcgtatttg tgatgcagggt gttgagagga tgtcactgga
241 ttctcatttg tctcagagga catgccattg agaagccata aaagtgggtgc ttttactttc
301 tgtgagtctg ggtaacactg atcttaggggt atagtccac ttaagatctt gaatctgtgc
361 tgagaagctg aggcctagag tatgggatgg cagagcctgg catcacacca cccttgagg
421 ggggctcctt ggcaatgcag gagaacagga tattggatgc tggagcagtg ctgcacagac
481 tctaagcact gagagggcag agtccatgtc tgcttgatca ccactgagtc ctcacagcct
541 ggcacagtgc taggccacat aacagctctc agcaaaaatg ttttgttttg ttttgagatg
601 gagtctcgct ctgttgccca gcctggagtg cagtgggtgtg atctcagctc actgcagcct
661 ctgcctcctg ggttcaagca attctgtctc ctcagccgcc caagtagctg ggattacagg
721 tgcatgccac catgcctggc taatttttgt atttttaata gagacggggt tttgccatgt
```

(2) INFORMATION FOR SEQ ID NO:2955:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 278 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2955:

```
1 gaattcttgc atctattcac tgagggagggc aggacaagca tcgtcacccc cattttcaca
61 taagggaatg ctacgttttc tgtgttacag aagcagaagc tatatgagcc agtgggtgatc
121 cctgtgggca agctgtttcg accaaatgag agacaagtgg ctcagctggc caagaaggat
181 tacctaggca aggcgacggg aggtgggatt gctcagcttc ccctgagctc tctgtgggcc
241 cgggcattgt gagcaagggt ggagggactc ttgagaag
```

(2) INFORMATION FOR SEQ ID NO:2956:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 705 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2956:

```
1 gcaggagaat cacttgaacc tggaaggcag aggttgcagt gagctgagtc actccactgc
61 actccagtct gggtaacaga gcgtgctccg tctcaaaaaa aaaaaaaa aaaaagataa
121 tttgatgtta tacaaattgc acctcaatta aaaacatttc ttttttaaga gagaagaaag
181 caagcctgtg tttagcaggg tggggtgaat gctcgtttct tcagttgctg aaatccta
241 ccagaggctc aggaatctaa tcttagtga ctgtccacgt ctgaaaccag gctcacgtaa
301 gaacaggtct agggcatgag caaagaggga gaccacagaag aatggaaaca gtgctggcag
361 agcctcacac cctcctgtcc ttgattttag gtcgtggcat ctgtggtgga tcaagacagt
421 ttctctgggt ttgccctctc gcaaccacag gtaaggcagt cctgaccttc tccatggacc
481 taggtctcga gagctttctg tgaagcattc aattcgagag actatgtgtg ctgagttgcc
541 tgattgtaag ggctccttca agtggccctc agtgcagctg aggattctgc ctgccctctc
601 tcagtctctg tttccatggc tggtagagaa ataaggcagt gtcaggcttc accccaagtc
```

661 ctctgaagct aactctcctg cttccccaca aatgccggtc ttcac

(2) INFORMATION FOR SEQ ID NO:2957:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 709 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2957:

```

1  actgaattgc tgtgctagtg aaacctgtac ctgggagctg gtgggaggtg ttatttccca
61  gtgttttagtc aggggtgactg tgccctcttc ctagacagtg ttctcatcag tcagaaatgc
121 gttatttgat tttctggtct ggaagaatgc tcaaattacc attagccgtt tgtgtctct
181 cccctgcttt ccctcattgc cttttccggt ttcacttctc ctgaatgttc aataggcagc
241 tgagcctcca ccagaccga aaaccccaga gatcttcagg taagttagat tcaaattccat
301 aaatagaata tcaagcgcca agcctgagct gatggcaaga aaggaggagg agaagatgaa
361 ggtggggtca ggtctaaat cttgttgaat tttctggaat gtcaggcttc ttctagaatg
421 tcaggctaga aaggaatgcc tagaagaatg tcttctagaa tgcaggcta gaaaggaatg
481 atatatgggg atgggagtct tgactgtggt ggggctggcc atcagggtt ggctgcagct
541 acgtggtcca ttggccctct gtccacgtgc acagccacca catgcagggg ttgtgctgag
601 ggcagtgtgt cctgtggaac atagctacct gggaccagat gctgacctca ggttgagat
661 cggtttcgca ctggtgcag tcctctgacg gggcaggcca gagctctct

```

(2) INFORMATION FOR SEQ ID NO:2958:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 849 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2958:

```

1  tgagcagtgt acaccagttt cttgctgaga cctcttgga cccaggcaggc tcagtgtcat
61  ctccggcagtt gcagtttagat gtggagttag agccaggctg agccaagtcc ctggctccaa
121 gttcagtgtg tttgcgccat ggcacatgtg gaggggatgg gggctggatc ttgtgtctat
181 cctctgcagg gctctggaag gggaggctca cgtgtgcta tttgggttg tgctgagac
241 aaaagaagag ctccaggta tgccaggga cattgtctt gtcttgaaga agggcaatga
301 taactggggc acggtcatgt tcaacgggca ggtatgcaga ggatcagggg ctggtgcat
361 gggcatggga tcctggcagc aaatgcagtc tctgtggagc agtatctgct gccttctttg
421 cagaccagcc aagttctttt gtctgttcgt catcccttcc ccaggactct gggctgttct
481 gtggtgtggg tactgatgag cacatcttta ttttttctt tctgattctg tgggtgctga
541 ctgcagaagg ggctgttcc ctgcaactac cttgaaccag ttgagctgag gatccacct
601 cagcagcagc cccaggtaat gtgatgcaa ggcctgacct atttctctc accctttagg
661 atctctccct ggaggagaaa aagcagtgtg aaagaggtgt tgcaggacc cctggagaaa
721 gattcactag tcttgagccc gccttgagat ggcaccagct acccagagct gaacctggga
781 atgaggggaa aaaagccag atgtgctaag ttggaggcat ctgtaggtcc cattggccca
841 cccacctct

```

(2) INFORMATION FOR SEQ ID NO:2959:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 308 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2959:

```

1  aatgtcacta ccattccaac ttttaggacg ttatctgcat gtggctcctt tacatggggt
61  ctctgtaggg gtgtttcccc acatccaccc ctgcctggga actttgaatg aaggttctga
121 ccactgcctc ctgttgcttc caggaggaaa gctctccgca gtccgacatc ccagctcctc
181 ctagtcccaa agcccctgga agaccccagc tgtcaccagg tgagtgttcc tggagccaca
241 gcctaggttt ggggtgcagc gcatgccagg tgttccctgag ttcctctccc tgccttccag
301 gaaattct

```

(2) INFORMATION FOR SEQ ID NO:2960:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 463 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2960:

```
1 gactgagttt gttcatgtgt tcatgacett catgcttccc cagggcgaga tttccccaca
61 gtttactaag gtttaataatt gccccacaaa ttaaagggtt agagggttggg ggccctattt
121 gaagagggtt catctgtgtg tggcaggggc tggccaagga tgttcattca ccatcttctt
181 ttgttttact ccctactttt tccattcagg ccagaaacaa aaagaagagc ctaaggtaac
241 atttttccct catactgttt caagtggtag aagatgggat agcttgggct atcaaccaca
301 gacatgtctg tctggattat aggaagagcc caaaggaggg tcgaaccagt tgctacctta
361 cagagtccat gagctaggga ctttcttaat agcctcctcc actatcatgc acacacttcc
421 tactacccaa gctagtgggc cagatcttac tcagtaggaa ttc
```

(2) INFORMATION FOR SEQ ID NO:2961:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 784 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2961:

```
1 gaattcctgt ccaagcaagg gttgggctaa aggacctctg aaggcctttt aggctactgt
61 gaaaccagtt acttactggc ctctcccctg ctgtattggg taccctctgt gccaaatcac
121 gaaactgccc tgatccagga tgttgagaga aagcctcaga cactcaggag ttccctttgt
181 ttctctccca ctccaggaagt gaagctcagt gttcccatgc cctacacact caagggtcac
241 tacaagtaca cggtagtcat gaagactcag cccgggctcc cctacagcca ggtccgggac
301 atggtgtcta agaaactgga gctccggctg gaacacacta agctgagggt agctccatgc
361 aggcagctgt gaggggtaca gtgggaacct tgtgctggcc tggaggaggg aagaggagga
421 tgggttttgt gatgatgttc tttgactgga ttcttactca ttatccccac ccagctatcg
481 gcctcgggac agcaatgagc tgggtcccct ttcagaagac agcatgaagg atgcctgggg
541 ccagggtgaaa aactactgcc tgactctgtg gtgtgagaac acagtgggtg gtgcaatgag
601 gggcatctaa agttacattt ccactgagcc acttcctcaa caatttgaaa ttatcaagc
661 accttctgtg tactaggcac tatatgtggt gttggggata tgggtgtgaa taagtcacag
721 ctctgcctcc cttttacctg catcctcacc ccatttgag cagggagaga gtttccaca
781 agag
```

(2) INFORMATION FOR SEQ ID NO:2962:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 450 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2962:

```
1 ttcataaaga gcatataagc tctacacaag gcactgatca caaactttat gagttttatat
61 cccaggttct actttgacat ttgcgtgttt cctttagtga tgttcagttg tcacttgcca
121 ggaaattggg aaaattaaca ggccctttat tatttcaggg tgaccaaggc tttccagatg
181 aaccacaagg aagtgaataa gctgatgcta ataaccagac aacagaacct cagcttaaga
241 aaggcagcca agtgagggca ctcttcagtt atgaggctac ccaaccagag gacctggagt
301 ttcaggaagg ggatataatc ctggtgttat caaagggtta gtgctactcc aagactatag
361 aaacaaatth acatgttagc agaaacaagg tcaagggcag agagaagaaa tatcaataat
421 ctacaaacaa aacttttagc agtggtttta
```

(2) INFORMATION FOR SEQ ID NO:2963:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1145 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2963:

```
1 gtcaatttct gaccctcttc tctatctggt aactttttga aaaacataat ttatcctctc
61 ttcatthtgc tcattatcat gtttaagaca gatcaataag atggttaaac cctgtgttca
121 ctctcaaac acccttgcaat actgtctttt ccctgttgat cacaattagg ggtggggaag
181 ggtgaccgat aacaaattct gtgtggaata gccagacagg gtaatcttcc tacagtgggt
241 ttagaaatcc atgtgtactt ttccctttat cagtgaatga agaattggct gaaggggagt
301 gcaaagggaa ggtgggcatt ttccccaag tttttgttga agactgcgca actacagatt
361 tggaaagcac tcggagagaa gtctaggatg ttccacaaac tacaagctg aagaaaatga
421 agccctatta cttgtttgta agatttagca cccttctgct gtatactgta ctgagacatt
```

481 acagtttggga agtggttaact atttattccc tgttaaaatt taacctacta gacaatgatg
541 tgagtaccca ggatgatttc ctggggcaca gtgggtgagg agatggggac aggtgaatgg
601 aggagttagg ggagaggaaa agtggatgga agtgtctgga aagggcacga gagagtcttc
661 cagggtactga tcctgtttct tgctctgagt gctagctagc cagctgtgtt cacactgtaa
721 acattcatca agctgtacat ttggtgcaact tttctgtgtc ataccacaat aaaaaaaac
781 ctatcatctt acaaaaacaa gacaccaag tccaggccca aggagtaagt acaaatattc
841 ctgtttctga accattactg taattggtc ttaaggcttg aagtaacctt ataggttact
901 cataaggcat atacaataa acttggttgt tttctttttt cattatgtct tgttgcttaa
961 acagaacctg gactgagtta ggttctcatg gactacaaca ctcaattcca cagagaatta
1021 atagaattac atacctttgt acattctcag agaggaacat gtgttaagaa ctcaatactg
1081 aatatatatt aatcgccaac atttaagtga tgaaaagcag cgtgtgtcat gaagctagtt
1141 cgtaa

(2) INFORMATION FOR SEQ ID NO:2964:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 75 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2964:

1 gtcacatcgc cctgctgggc ttgagaagc gcttcgtacc cagccagcac tatgtgtaca
61 tgttctcgtt gaaat

(2) INFORMATION FOR SEQ ID NO:2965:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11651 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2965:

1 ctagtctttc agccttcagg ctgttttttg cttgaagctc tcttggcctc ctagtcttcta
61 cctaatacatg tccctggttg aggccatcag cctctggaat gaaggggtgc tggcagcgga
121 caagaaggac tggaaggag ccctggatgc cttcagtgc gtccaggacc cccactccc
181 gatttgcttc aacattggct gcatgtacac tatcctgaag aacatgactg aagcagagaa
241 ggcctttacc agaagcatta accgagacaa gcacttgga gtggcttact tccaacgagg
301 gatgctctac taccagacag agaaatatga tttggctatc aaagacctta aagaagcctt
361 gattcagctt cgaggggaacc agctgataga ctataagatc ctggggctcc agttcaagct
421 gtttgccctgt gaggtgttat ataacattgc tttcatgtat gccagaagg aggaatggaa
481 aaaagctgaa gaacagttag cattggccac gagcatgaag tctgagccca gacattccaa
541 aatcgacaag gcgatggagt gtgtctggaa gcagaagcta tatgagccag tggatgctcc
601 tgtgggcaag ctgtttcgac caaatgagag acaagtggct cagctggcca agaaggatta
661 cctaggcaag gcgacggtcg tggcatctgt ggtggatcaa gacagtctt ctgggtttgc
721 cctctgcaa ccacaggcag ctgagcctcc acccagaccg aaaaccccag agatcttcag
781 ggctctgaa ggggaggctc accgtgtgct atttgggttt gtgcctgaga caaaagaaga
841 gctccaggtc atgccaggga acattgtctt tgtcttgaag aagggcaatg ataactgggc
901 cacggtcatg ttcaacgggc agaaggggct tgttccctgc aactacctg aaccagttga
961 gttcgggatc caccctcagc agcagcccca ggaggaaagc tctccgcagt ccgacatccc
1021 agtccctcct agttccaaag cccctggaaa accccagctg tcaccaggcc agaacaacaa
1081 agaagagcct aaggaaatga agctcagtg tcccatgccc tacacactca aggtgacta
1141 caagtacacg gtatgcatga agatcagcc cgggctcccc tacagccagg tccgggacat
1201 ggtgtctaa aaactggagc tccggctgga acacactaag ctgagctatc ggctcggga
1261 cagcaatgag ctggtgcccc tttcagaaga cagcatgaag gatgcctggg gccaggtgaa
1321 aaactactgc ctgactctgt ggtgtgagaa cacagtgggt gaccaaggct ttcagatga
1381 acccaaggaa agtgaaaaag ctgatgctaa taaccagaca acagaacctc agcttaagaa
1441 aggcagccaa gtggaggcac tcttcagtta tgaggctacc caaccagagg acctggagtt
1501 tcaggaaggg gatataatcc tgggtgtatc aaaggtgaat gaagaatggc tgggaaggga
1561 gtgcaaaagg aaggtgggca ttttcccaa agtttttgtt gaagactgcg caactacaga
1621 tttggaaaagc actcggagag aagtctagga tgtttcacia actacaaagc tgaagaaaat
1681 gaagccctat tacttggttg taagatttag caccctctct ctgtatactg tactgagaca
1741 ttacagtttg gaagtgttaa ctattattc cctgttaaaa tttaacctac tagacaatga
1801 tgtgagtacc caggatgatt tcctggggca cagtgggtga ggagatgggg acaggtgaat
1861 ggagggagttt ggggagagga aaagtggatg gaagtgtctg gaaaggccac gagagagttc
1921 tccaggtact gatcctgttt cttgctctga gtgctagcta gccagctgtg ttcacactgt
1981 aaacattcat caagctgtac atttggtgca cttttctgtg tcataccaca ataaaaaaa
2041 acctatcatc atcttacaac aacaagacac ccaagtccag gcccaaggag taagtacaaa
2101 tattcctggt tctgaacatc tactgttaatt ggctcttaag gcttgaagta accttatagg

2161 ttactcataa ggcataatca aataaacttg tttgttttct tttttc
2207 ctagtctttc agccttcagg ctgttttttg cttgaagctc tcttgccctc ctagtcttcta
2267 cctaatacatg tccctggtgg aggccatcag cctctggaat gaaggggtgc tggcagcgga
2327 caagaaggac tgggaaggag ccctggatgc cttcagtgcc gtccaggacc cccactccc
2387 gatttgcttc aacattggct gcatgtacac tatcctgaag aacatgactg aagcagagaa
241 ggcctttacc agaagcatta accgagacaa gcacttgcca gtggcttact tccaacgagg
301 gatgctctac taccagacag agaaatatga tttggctatc aaagacctta aagaagcctt
361 gattcagctt cgagggaacc agctgataga ctataagatc ctggggctcc agttcaagct
421 gtttgctctg gaggtgttat ataacattgc tttcatgtat gccagaagg aggaatggaa
481 aaaagctgaa gaacagttag cattggccac gagcatgaag tatgagccag tggatgccc
541 aatcgacaag gcgatggagt gtgtctggaa gcagaagcta cagctggcca agaaggatta
601 tgtgggcaag ctgttttcgac caaatgagag acaagtggct ggtggatcaa gacagtttct ctgggtttgc
661 cctagggcaag gcgacggctg tggcatctgt acccagaccg aaaaccccag agatcttcag
721 cctctgcaaa ccacaggcag ctgagcctcc atttgggttt gtgctgaga caaaagaaga
781 gctcctggaa ggggaggctc accgtgtgct tgtcttgaag aagggcaatg ataactgggc
841 gctccaggct atgccaggga acattgtctt tgttccctgc aactaccttg aaccagttga
901 caggtctcatg ttcaacgggc agaaggggct tgttccctgc aactaccttg aaccagttga
961 gttgctgctc caccctcagc agcagcccca ggaggaaagc tctccgcagt ccgacatccc
1021 agctcctcct agttccaaag cccctggaaa accccagctg tcaccaggcc agaacaacaaa
1081 agaagagcct aaggaagtga agctcagtg tcccatgccc tacacactca aggtgcacta
1141 caagtacacg gtatgctatga agactcagcc cgggctcccc tacagccagg tccgggacat
1201 ggtgtctaaag aaactggagc tccggctgga acacactaag ctgagctatc ggctcgggga
1261 cagcaatgag ctggtgcccc tttcagaaga cagcatgaag gatgcctggg gccaggtgaa
1321 aaactactgc ctgactctgt ggtgtgagaa cacagtgggt gaccaaggct ttcagatga
1381 acccaaggaa agtgaaaaag ctgatgctaa taaccagaca caaccagagg acctggagtt
1441 aggcagccaa gtggaggcac tcttcagtta tgaggctacc gaagaatggc tgggaagggga
1501 tcagggaagg gatataatcc tgggtttatc aaaggtgaat gaagactgcg caactacaga
1561 gtgcaaaagg aaggtgggca ttttcccaaa agtttttgtt gaagactgcg caactacaga
1621 tttggaaaag actcggagag aagtctagga tgtttcacia actacaaagc tgaagaaaaat
1681 gaagccctat tacttgtttg taagatttag caccctctct ctgtatactg tactgagaca
1741 ttacagtttg gaagtgttaa ctatttattc cctgttaaaa ttttaacctac tagacaatga
1801 tgtgagtacc caggatgatt tccctggggc cagtgggtga ggagatggg acaggtgaat
1861 ggaggagtta ggggagagga aaagtggatg gaagtgtctg gaaagggcac gagagagtct
1921 tccaggtact gatcctgttt cttgctctga gtgctagcta gccagctgtg ttcacactgt
1981 aaacattcat caagctgtac atttgggtgca cttttctgtg tcataccaca ataaaaaaa
2041 acctatcatc atcttacaac aacaagacac ccaagtcag gccaaggag taagtacaaa
2101 tattcctgtt tctgaacatc tactgtaatt ggtctttaag gcttgaagta accttatagg
2161 ttactcataa ggcataatca aataaacttg tttgttttct tttttc
1 gcagagctgg gcaccacagg gagctaggct ctgtgagccg tggctcatct cacacctcct
61 cactgccttg catcatggcc atgtctggac ccttctctcc tcaggccctt accagaagca
121 ttaaccgaga caagcacttg gcagtggtt acttccaacg agggatgctc tactaccaga
181 cagagaagta agtggttcaa tgttgacca actggaggat ttcagagaga aaccaaggg
241 gtctcagtg tgcgggcttg agt
1 ggctcagaag aactgaaagg cttctgttcc cagttagata gctggggaag ggagaagcag
61 actcacattt tatgtctcat ttatttctcc atccactaga ctgctgattt tctccctctg
121 tcttgagat atgatttggc tatcaaagac cttaaagaag ccttgattca gcttcgaggg
181 aaccagctga tagactataa gatcctggg ctccagttca agctgtttgc ctgtgaggtg
241 aggagaacag ggcctggctg ggcaggagg gatcatggct ggtatggatg ctgacagtca
301 gatgcacagt gatctgttga cactccagg agcttgaaa agccatttct cctctgcctt
361 gagactcaga ttttcttga agaaaagact gagatggatt atttcaggct catcaaggca
1 tttcctggca ccttgatttg gagtagtctc aagttttatg tttgcggtct gtacttttct
61 aggtgttata taacattgct ttcattgtatg ccaagaagga ggaatggaaa aaagctgaag
121 aacagtttagc atttgccacg agcatgaagt ctgagcccag acattccaaa atcgacaagg
181 cgatggagt tgtctgggta agcgtatttg tgatgcaggt gttgagagga tgtcactgga
241 ttctcatttg tctcagagga catgccattg agaagccata aaagtgggtc ttttactttc
301 tgtgagtctg ggttaacact atcttagggt atagttccac ttaagatctt gaatctgtgc
361 tgagaagctg aggcctagag tatgggatgg cagagcctg catcacacca cccttgaggt
421 ggggctcctt ggcaatgcag gagaacagga tattggatg tggagcagtg ctgcacagac
481 tctaagcact gagaggcag agtccatgtc tgcttgatca ccactgagtc ctcacagcct
541 ggcacagtgc taggccacat aacagctctc agcaaaaatg ttttgtttg ttttgagatg
601 gagtctcgct ctgttgcaca gctggagtg cagtgggtgt atctcagctc actgcagcct
661 ctgcctcctg ggttcaagca attctgtctg ctcagccgcc caagttagct ggattacagg
721 tgcattgccac catgcctggc taatttttgt atttttaata gagacggggt tttgcatgt
1 gaattcttgc atctattcac tgagggaggc aggacaagca tctgacccc cattttcaca
61 taagggaatg ctacgttttc tgtgttacag aagcagaagc tatatgagcc agtgggtgat
121 cctgtgggca agctgtttcg accaaatgag agacaagtgg ctcagctggc caagaaggat
181 tacctaggca aggcgacggt aggtgggatt gctcagcttc ccctgagtct tctgtggcc
241 cgggcatgtg gagcaagggt ggagggactc ttgagaag

1 gcaggagaat cacttgaacc tgggaaggcag aggttgagct gagctgagtc actccactgc
61 actccagctct gggtaacaga gcgtgctccg tctcaaaaaa aaaaaaaaga aaaaagataa
121 tttgatgtta tacaaattgc acctcaatta aaaacatttc ttttttaaga gagaagaaag
181 caagcctgtg ttagcagggg tgggggtgaat gctcgtttct tcagttgctg aaatcctaata
241 ccagaggctc aggaatctaa tcttagttag ctgtccacgt ctgaaaccag gctcacgtaa
301 gaacaggctc agggcatgag caaagaggga gaccagaag aatggaaca gtgctggcag
361 agcctcacac cctcctgtcc ttgatttttag gtcgtggcat ctgtgggtga tcaagacagt
421 ttctctgggt ttgccccctc gcaaccacag gtaaggcagt cctgaccttc tccatggacc
481 taggtctcga gagctttctg tgaagcattc aattcgagag actatgtgtg ctgagttgcc
541 tgattgtaag ggctccttca agtggccctc agtgcagctg aggattctgc ctgccctctc
601 tcagtcctgg ttcccatggc tggtaggaa ataaggcagt gtcaggcttc accccaagtc
661 ctctgaagct aactctcctg cttccccaca aatgccggtc ttcac
11152 acattcatca agctgtacat ttggtgcact tttctgtgtc ataccacaat aaaaaaaac
11212 ctatcatctt acaaaaacaa gacacccaag tccaggccca aggagtaagt acaaatattc
11272 ctgtttctga accattactg taattggctc ttaaggcttg aagtaacctt atagggtact
11332 cataaggcat atacaataa acttgtttgt tttctttttt cattatgtct tgttgcttaa
11392 acagaacctg gactgagtta ggttctcatg gactacaaca ctcaattcca cagagaatta
11452 atagaattac ataccttctg acattctcag agaggaacat gtgttaagaa ctcaatctg
11512 aatatatatc aatcgccaac atttaagtga tgaagcagc cggtgttcat gaagctagtt
11572 cgtaa
11577 gtcacatcgc cctgctgggc tttgagaagc gcttcgtacc cagccagcac tatgtgtaca
11637 tgttctctgt gaaat

(2) INFORMATION FOR SEQ ID NO:2966:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1064 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2966:

1 ccagctgata ttccagccca cagcaatgga gccacatgac tcttcccaca tggactctga
61 gttccgatac actctcttcc cgattgttta cagcatcacc tttgtgctcg gggctattgc
121 taatggctac gtgctgtggg tctttgcccg cctgtaccct tgcaagaaat tcaatgagat
181 aaagatcttc atgggtgaacc tcaccatggc ggacatgctc ttcttgatca ccctgccact
241 ttgattgtc tactaccaaa accagggcaa ctggatactc cccaaattcc tgtgcaacgt
301 ggctggctgc cttttcttca tcaaacaccta ctgctctgtg gccttctctg gcgtcatcac
361 ttataaccgc ttccaggcag taactcggcc catcaagact gtcaggcca acaccgcga
421 gcgtggcatc tctttgtcct tgggtcatctg ggtggccatt gtgggagctg catcctactt
481 cctcatcctg gactctacca acacagtgcc cgacagtgtc ggctcaggca acgtcactcg
541 ctgctttgag cattacgaga agggcagcgt gccagtcctc atcatccaca tcttcatcgt
601 gttcagcttc ttctgtgtct tcttcatcat cctctctctg aacctgggtc tcatccgtac
661 cttgtctcat cagccgggtg agcagcagcg caacgctgaa gtcaggcgc gggcgctgtg
721 gatggtgtgc acggtcttgg cgggtttcat catctgcttc gtgccccacc acgtggtgca
781 gctgccctgg acccttctg agctgggctt ccaggacagc aaattccacc aggccattaa
841 tgatgcacat caggtcacc cctgctcctc tagcaccac tgtgtcttag accctgttat
901 ctactgtttc ctcaccaaga agttccgcaa gcacctcacc gaaaagttct acagcatgcg
961 cagtagccgg aaatgctccc gggccaccac ggatacggtc actgaagtgg ttgtgccatt
1021 caaccagatc cctggcaatt cctcaaaaaa ttagtctctg ctte

(2) INFORMATION FOR SEQ ID NO:2967:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1780 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2967:

1 ttacagaggg ctggggccag gaccagaca gagacacag gtcactgcag ctgaagccgc
61 tgcccctgct acaggcacca ccaggaccag ctgatcattc cagcccacag caatggagcc
121 acatgactcc tccacatgg actctgagtt ccgatacact ctcttcccga ttgtttacag
181 catcatcttt gtgctcgggg tcattgctaa tggctacgtg ctgtgggtct ttgcccgct
241 gtacccttgc aagaaattca atgagataaa gatcttcatg gtgaacctca ccatggcgga
301 catgctcttc ttgatcacc tgccactttg gattgtctac taccaaaacc agggcaactg
361 gatactcccc aaattcctgt gcaacgtggc tggctgcctt ttcttcatca acacctactg
421 ctctgtggcc ttctgtggcg tcatcactta taaccgcttc caggcagtaa ctgcggccat
481 caagactgct caggccaaca cccgaagcg tggcatctct ttgtccttgg tcatctgggt
541 ggccattgtg ggagctgcat cctacttctc catcctggac tccaccaaca cagtgccgca

601 cagtgtctggc tcaggcaacg tcaactcgctg ctttgagcat tacgagaagg gcagcgtgcc
661 agtcctcatc atccacatct tcatcgtgtt cagcttcttc ctgggtcttcc tcatcatcct
721 cttctgcaac ctgggtcatca tccgtacctt gctcatgcag ccggtgcagc agcagcgcaa
781 cgctgaagtc aagcgccggg cgctgtggat ggtgtgcagc gtcttggcgg tgttcatcat
841 ctgcttcgtg ccccaccacg tgggtgcagct gccctggacc ctgtgtgagc tgggtctcca
901 ggacagcaaa ttccaccagg ccattaatga tgcacatcag gtcaccctct gctccttag
961 caccaactgt gtcttagacc ctgttatcta ctgtttcctc accaagaagt tccgcaagca
1021 cctcaccgaa aagttctaca gcatgcgcag tagccggaaa tgctcccggg ccaccacgga
1081 tacggtcact gaagtgggtt tgccattcaa ccagatccct ggcaattccc tcaaaaatta
1141 gtcctgtgct ccaggcctga agtcttctcc tccatgaaac atcatgactg agctggggga
1201 agaagggata tctactgtgg gtctgggcac cactctgtg gcactgggtg gccattagat
1261 ttggaggcta cctcactcgg gcagggatga tgcagagcca ggctgttggg aaatccagaa
1321 ctcaaatgag ccccttcatc cgcctgtggg cgcatactac agtaactgtg actgatgact
1381 ttatcctgag tcccttaatc ttatggggcc ggaaggaaatg tcaggggcag gtgcagacct
1441 tgggggaaga ctttaaacca cctagtcttc ccactggggc atcgggtctaa agcttggggg
1501 gagtggcccc agtggctcac acctgtaatc ccagcacttt gggaggccga ggtgggcaga
1561 tcatgggtca agagatcgag acatcctggc caacattgta aaaccccatc tctactaaaa
1621 catataaaaa tttagccggc atggtgcaca cgcctgtagt ccagctact caggaggctg
1681 aggcaggaga atcgcttgaa cctggggaggc agaggttgca gtgaacctag attgcacat
1741 tgcactctag cctggcaaca gaggcagatt cctcctgcc

(2) INFORMATION FOR SEQ ID NO:2968:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1467 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2968:

1 cgggagggcg aggttgcggg gagctgagat cagccactg cactccagcc tgggcagcaa
61 gagtgaact ccatctgaaa aaaaaaaaaa gattcaacat gaacttctga ggggacatca
121 tcattctaac catggcaagg agtcttggaa ctgatgaaat ggaacagtcc cttcttgtcc
181 ctttattaac cagaattttt gtgtgtgtt ccaggcacca ccaggaccag ctgatcatc
241 cagcccacag caatggagcc acatgactcc tcccacatgg actctgagtt ccgatacact
301 ctcttcccga ttgtttacag catcatcttt gtgtcgggg tcattgctaa tggctacgtg
361 ctgtgggtct ttggccgcct gtacccttgc aagaaattca atgagataaa gatcttcatg
421 gtgaacctca ccatggcggg catgctcttc ttgatcacc tcgcaacttg gattgtctac
481 taccaaaacc agggcaactg gatactcccc aaattcctgt gcaacgtggc tggctgcctt
541 ttcttcatca acacactact ctctgtggcc ttcttggcg tcatcactta taaccgttcc
601 caggcagtaa ctggcccat caagactgct caggccaaca cccgcaagcg tggcatctct
661 ttgtccttgg tcatctgggt ggccattgtg ggagctgcat ctaacttctc catcctggac
721 tccaccaaca cagtgccga cagtgtggc tcaggcaacg tcaactcgtg ctttgagcat
781 tacgagaagg gcagcgtgcc agtccctcat atccacatct tcatcgtgtt cagcttcttc
841 ctggtcttcc tcatcatcct ctttgcaaac ctgggtcatca tccgtacctt gctcatgcag
901 ccggtgcagc agcagcgcaa cgctgaagtc acaggccggg cgctgtggat ggtgtgcagc
961 gtcttggcgg tgttcatcat ctgcttcgtg ccccaccacg tgggtgcagct gccctggacc
1021 cttgctgagc tgggtctcca ggacagcaaa ttccaccagg ccattaatga tgcacatcag
1081 gtcacccctc gctccttagt caccactgt gtcttagacc ctgttatcta ctgtttcctc
1141 accaagaagt tccgcaagca cctcaccgaa aagttctaca gcatgcgcag tagccggaaa
1201 tgcctccggg ccaccacgga tacggtcact gaagtgggtt tgccattcaa ccagatccct
1261 ggcaattccc tcaaaaatta gtccctgctt ccaggcctga agtcttctcc tccatgaaca
1321 tcatggactg agctggggga agaagggata tctactgtgg tctgggcacc acctctgtg
1381 gcaactgttg gccattagat ttggaggcta cctcactcgg gcagggatga tggcagacga
1441 ggctgttggg aaatccagaa ctcaaat

(2) INFORMATION FOR SEQ ID NO:2969:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4311 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2969:

1 ccagctgata ttccagccca cagcaatgga gccacatgac tcctcccaca tggactctga
61 gttccgatac actctcttcc cgattgttta cagcatcctc tttgtgctcg gggctattgc
121 taatggctac gtgctgtggg tctttgcccg cctgtaccct tgcaagaaat tcaatgagat
181 aaagatcttc atggtgaacc tcacatggc ggacatgctc ttcttgatca cctgcccact
241 ttggattgtc tactacaaaa accagggcaa ctggatactc cccaaattcc tgtgaacgt
301 ggctggctgc ctttcttca tcaaaccta ctgctctgtg gccttctgtg gcgtcatcac

361 ttataaccgc ttccaggcag taactcggcc catcaagact gctcaggcca acaccgcaa
421 gcgtggcacc tctttgtcct tgggtcatct ggtggccatt gtgggagctg catcctactt
481 cctcatcctg gactctacca acacagtgcc cgacagtgtt ggctcaggca acgtcactcg
541 ctgctttgag cattacgaga agggcagcgt gccagtcttc atcatccaca tcttcactcg
601 gttcagcttc ttcttggtct tctcatcat cctctctgc aacctggtca tcatccgtac
661 cttgctcatg cagccggtgc agcagcagcg caacgctgaa gtcaagcgcc gggcgctgtg
721 gatgggtgtg acggtcttgg cgggtttcat catctgtctt gtgccccacc acgtgggtgca
781 gctgcccctg acccttgtct agctgggctt ccaggacagc aaattccacc aggccattaa
841 tgatgcacat caggtcacc cctgctcct tagcaccacac tgtgtcttag accctgttat
901 ctactgtttc ctcaccaaga agttccgcaa gcacctcacc gaaaagtctt acagcatgcy
961 cagtagcccg aaatgctccc gggccaccac ggatacggct actgaagtgg ttgtgccatt
1021 caaccagatc cctggcaatt cctcaaaaa ttagtcttg cttc
1065 ttcaagaggc ctggggccag gaccagaca gagacacag gtcactgcag ctgaagccgc
1125 tgcccctgct acaggcacca ccaggaccag ctgatcattc cagcccacag caatggagcc
1185 acatgactcc tcccacatgg actctgagtt ccgatacact ctcttcccga ttgtttacag
1245 catcatcttt gtgctcgggg tcattgctaa tggctacgtg ctgtgggtct ttgcccgctt
1305 gtacaccttg aagaaattca atgagataaa gatcttcatg gtgaacctca ccatggcgga
1365 catgctcttc ttgatcacc tgccactttg gattgtctac taccaaaacc agggcaactg
1425 gatactcccc aaattcctgt gcaacgtggc tggctgcctt ttcttcatca acacctactg
1485 ctctgtggcc ttcttgggcg tcatcactta taaccgcttc caggcagtaa ctgcggccat
1545 caagactgct caggccaaca cccgcaagcg tggcatctct ttgtccttgg tcatctgggt
1605 ggccattgtg ggagctgcat cctacttctt catctggac tccaccaaca cagtggccga
1665 cagtgtgtgc tcaggcaacg tcaactcgct ctttagcat tacgagaag gcagcgtgcc
1725 agtctctatc attcacatct tcatcgtgtt cagcttcttc ctgggtcttc tcatcatcct
1785 cttctgcaac ctggtcatca tccgtacctt gctcatgcag ccggtgcagc agcagcgcaa
1845 cgctgaagtc aagcgccggg cgctgtggat ggtgtgcagc gtcttggcgg ttgtcatcat
1905 ctgcttctgt ccccaccacg tgggtcagct gccctggacc ctgtgtgagc tgggcttcca
1965 ggacagcaaa ttccaccag ccattaatga tgcacatcag gtcacctct gctccttag
2025 caccactgtt gtcttagacc ctgttatcta ctgtttcttc accaagaagt tccgcaagca
2085 cctcaccgaa aagtctctaca gcatgcgag tagccggaaa tgctcccggg ccaccacgga
2145 tacggctcact gaagtgggtg tgccattcaa ccagatccct ggcaattccc tcaaaaatta
2205 gtccctgctt ccaggcctga agtcttctcc tccatgaaac atcatgactg agctggggga
2265 agaagggata tctactgtgg gtctgggcac cactctgtgt gcactggtgg gccattagat
2325 ttggaggcta cctcacctgg gcagggatga tgcagagcca ggctgttgg aaatccagaa
2385 ctcaaatgag ccccttcatc cgcctgtggg cgcatactac agtaactgtg actgatgact
2445 ttatcctgag tcccttaatc ttatggggcc ggaaggaaat tcaggggccag gtgcagacct
2505 tgggggaaga ctttaaacca cctagtcttc ccactggggc atcgggtctaa agctttgggg
2565 gagtggcccc agtggctcac acctgtaatc ccagcacttt gggaggccga ggtgggcaga
2625 tcatgggtca agagatcgag acatcctggc caacattgta aaacccatc tctactaaaa
2685 catacaaaaa ttagccgggc atggtgcaca cgctgtagt cccagctact caggaggctg
2745 aggcaggaga atcgcttgaa cctgggaggg agaggttgca gtgaacctag attgcaccat
2805 tgcaacttag cctggcaaca gaggcagatt cctcctgcc cactccagcc tgggcagcaa
2845 cgggaggcgg aggttgcggt gagctgagat cagccactgt cactccagcc tgggcagcaa
2905 gagtgaact ccatctgaaa aaaaaaaaaa gattcaacat gaacttctga ggggacatca
2965 tcattctaac catggcaagg agtcttgga ctgatgaaat ggaacagtcc cttcttgtcc
3025 ctttattaac cagaattttt gtgtggtctt ccaggcaca ccaggaccag ctgatcattc
3085 cagcccacag caatggagcc acatgactcc tcccacatgg actctgagtt ccgatacact
3145 ctcttcccga ttgtttacag catcatcttt gtgctcgggg tcatgtctaa tggctacgtg
3205 ctgtgggtct ttgcccgctt gtacccttgc aagaaattca atgagataaa gatcttcatg
3265 gtgaacctca ccatggcgga catgctcttc ttgatcacc tgccactttg gattgtctac
3325 taccaaaacc agggcaactg gatactcccc aaattcctgt gcaacgtggc tggctgcctt
3385 ttcttcatca acactactg ctctgtggcc ttctggggcg tcatcactta taaccgcttc
3445 caggcagtaa ctggcccat caagactgct caggccaaca cccgcaagcg tggcatctct
3505 ttgtccttgg tcatctgggt ggccattgtg ggagctgcat cctacttctt catcctggac
3565 tccaccaaca cagtgcccg cagtgtgtgc tcaggcaacg tcaactcgct ctttagcat
3625 tacgagaagg gcagcgtgcc agtctctatc atccacatct tcatctgtt tccgtacctt gctcatgcag
3685 ctggtcttcc tcatcatcct cttctgcaac ctggtcatca tccgtacctt gctcatgcag
3745 ccggtgcagc agcagcgcaa cgctgaagtc acaggccggg cgctgtggat ggtgtgcagc
3805 gtcttggcgg tgttcatcat ctgctctgtg ccccaccacg tgggtcagct gccctggacc
3865 cttgtgtgag tgggcttcca ggacagcaaa ttccaccagg ccattaatga tgcacatcag
3925 gtcaccctct gcctccttag caccaactgt gtcttagacc ctgttatcta ctgtttcttc
3985 accaagaagt tccgcaagca cctcaccgaa aagttctaca gcatgcgag tagccggaaa
4045 tgctcccggg ccaccacgga tacggtcact gaagtgggtg tgccattcaa ccagatccct
4105 ggcaattccc tcaaaaatta gtcctgtctt ccaggcctga agtcttctcc tccatgaaca
4165 tcatggactg agctggggga agaagggata tctactgttg tctgggcacc acctctgtgg
4225 gcactggttg gccattagat ttggaggcta cctcacttgg gcagggatga tggcagacga

4285 ggctgttgga aaatccagaa ctcaa

(2) INFORMATION FOR SEQ ID NO:2970:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 827 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2970:

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1 ctctctctgc acaccttccg cacacctccc tcgctctccc acaccactgg caccaggccc
61 cgcacacctg ctcggtcgca ggagaatggc tactcatcac acgctgtgga tgggactggg
121 cctgctgggg ctgctggggc gcctacaggg agcaccggag gccaggtct cctgcagcc
181 caacttccag cgggacaagt tctggggcg ctggttcagc gcgggcctcg cctccaactc
241 gagctggctc caggagaaga aggcagcgct gtccatgtgc aagtcggtg tggcccctgc
301 ggcggtgggt ggcttcaacc tgacctccac ctctctcagg aaaaccagt gtgagaccgg
361 aaccatgctg ctgcagcccc gggactccct cggctcctac agctaccgga gtccccactg
421 gggcagcacc tactctgtgt cagtgtgga gactgactac gaccactacg cctgctgta
481 cagccagggg agcaaggggc ccggcgagga ctcccgcatg gccaccctct acagccgaac
541 ccagaccccc agggctgagt taaaggagaa atttaccgcc ttctgcaagg ccaggggctt
601 cacagaggtt tccattgtct tctgccccca aaccgataag tgcattgacg aacaatagga
661 ctccccagag ctgaagctgg gaccgcagcc agccaggtga cccctgcgat ctggtgttt
721 cgcctctgtt ccttccccga gccctgccc cggctccccg ccaaagcacc cctgccccct
781 cgggcttctt cctggtctgt cggataaac tccggaagca agtctgt
```

(2) INFORMATION FOR SEQ ID NO:2971:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2245 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2971:

```
1 ggagcaagag gtggttggg ggggaccatg gctgacgttt tccccgggcaa cgactccacg
61 cgcgtctcagg acgtggccaa ccgcttcgcc cgcaaagggg cgctgaggca gaagaacgtg
121 cagcaggtga aggaccacaa attcatcgcg cgttcttca agcagccac cttctgcagc
181 cactgcaccg acttcatctg ggggttggg aaacaaggct tccagtcca agtttgcgtg
241 ttgtgtgctc acaagagggt ccatgaattt gttactttt cttgtccggg tgcggataag
301 ggacccgaca ctgatgacct caggagcaag cacaagttca aaatccacac ttacggaagc
361 cccaccttct gcgatcactg tgggtcactg ctctatggac ttatccatca agggatgaaa
421 tgtgacacct gcgatatgaa cgttcacaag caatgcgtca tcaatgtccc cagcctctgc
481 ggaatggatc acactgagaa gagggggcgg atttacctaa aggctgaggt tgcgtagtaa
541 aagctccatg tcacagtacg agatgcaaaa aatctaatac ctatggatcc aaacgggctt
601 tcagatcctt atgtgaagct gaaacttatt cctgatcccc agaataaag caagcaaaaa
661 accaaaaacca tccgtccac actaaatccg cagtggaaat agtcccttac attcaaattg
721 aaaccttcag acaagaccg acgactgtct gtagaatctt gggactggga tcgaacaaca
781 aggaatgact tcatgggac ctttctctt ggagtttcgg agctgatgaa gatgccggcc
841 agtggatggt acaagttgct taaccaagaa gaaggtgagt actacaacgt acccattccg
901 gaaggggacg aggaaggaaa catggaactc aggcagaaat tcgagaaaagc caaacttggc
961 cctgctggca acaagtcac cagtccctct gaagacagga aacaaccttc caacaacctt
1021 gaccgagtga aactcacgga cttcaatttc ctcatggtgt tgggaaaagg gagttttgga
1081 aaggtgatgc ttgccgacag gaagggcaca gaagaactgt atgcaatcaa aatcctgaag
1141 aaggatgtgg tgattcagga tgatgacgtg gactgcacca tggtagaaaa gcgagtcttg
1201 gccctgcttg acaaaccccc gttcttgacg cagctgcact cctgcttcca gacagtggat
1261 cggctgtact tgcgtcatgga atatgtcaac ggtggggacc tcatgtacca cattcagcaa
1321 gtaggaaaaa ttaaggaacc acaagcagta ttctatgagg cagagatttc catcggattg
1381 ttctttcttc ataaaaggag aatcatttat agggatctga agttagataa cgtcatgttg
1441 gattcagaag gacatatcaa aattgctgac ttgggagtgt gcaaggaaca catgatggat
1501 ggagtcacga ccaggacct ctgtgggact ccagattata tcgccccaga gataatcgct
1561 tatcagccgt atggaatac tgtggactgg tgggcctatg gcgtcctgtt gtatgaaatg
1621 cttgcccggc agcctccatt tgatgtgtaa gatgaagacg agctatttca gtctatcatg
1681 gagcacaacg tttcctatcc aaaatccttg tccaaggagg ctgtttctat ctgcaaggga
1741 ctgatgacca aacacccagc caagcggtg ggctgtgggc ctgaggggga gagggacgtg
1801 agagagcatg ccttcttccg gaggatcgac tgggaaaaaac tggagaacag ggagatccag
1861 ccaccattca agcccaagt gtgtggcaaa ggagcagaga actttgacaa gttcttcaca
1921 cagggacagc ccgtcttaac accactgat cagctgttta ttgctaacat agaccagtct
1981 gattttgaag ggttctcgta tgtcaacccc cagtttgtgc accccatctt acagagtga
2041 gtatgaaact caccagcgag aacaaacacc tccccagccc ccagccctcc ccgagtgga
```

2101 agtgaatcct taaccctaaa attttaaggc cacggcttgt gtctgattcc atatggaggc
 2161 ctgaaaattg tagggttatt agtccaaatg tgatcaactg ttcagggtct ctctcttaca
 2221 accaagaaca ttatcttagt ggaag

(2) INFORMATION FOR SEQ ID NO:2972:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 636 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2972:

1 cttatcacag ttcaagtgat ttccagaagt tccagggtct ctgagagacc atcaagggaa
 61 ctttaacaac ttgacaaatg tccttgaagt aagatgcctc atcttttaggg aaaaatgggg
 121 ttttgatttc tgcttaggca aagtctctcg cagttcatcc ttctctgtcc tcttcttgct
 181 tcaggcttgg ggaccgtccc tgctgtcccc actgtggtgg caatcaggac ctaagggtgaa
 241 gcaaacttga agttctatct gacaagttta ggcagtaaga gaaggaggga aatcggagca
 301 aagctccctc actttattgt tgagaaactg gcactctggaa agaagaagga atttgcccaa
 361 agtcagtcag ctgggataaa aacctgggtg tcctgtccag aaagtgcagg gtgctttctg
 421 ctctgtagca aggcagcaga catctctgag ccaggccccc caacagcccc ttatctggtg
 481 gttggatcat gatccccatt tgcttgagca tgctctcagg aagataaaaa ccatggagaa
 541 aactagggcc attgacaaat gatctgagac aactttagaa aacaatgtag gatgaatgga
 601 aagagaaaga aaggaaagaa aaaaaaaaaa aaaaagg

(2) INFORMATION FOR SEQ ID NO:2973:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2574 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2973:

1 cagagccggc gcaggggaag cgcccggggc cccgggtgca gcagcgcggc ccgcctcccg
 61 ggccctcccg gcccgagacc cgggggtccc ggccccgggg ccggcacctc tcggggtccc
 121 gctccccg cgcaagatgg ctgaccgggc tgcggggccc ccggcagcgg agggcgaggga
 181 gagcaccgtg cgcttcgccc gcaaaggcgc cctccggcag aagaacgtgc atgagggtcaa
 241 gaaccacaaa ttcacgcgcc gcttcttcaa gcagccacc ttctgcagcc actgcaccga
 301 cttcatctgg ggcttcggga agcagggtat ccagtgcaca gtttgctgct ttgtggtgca
 361 caagcgggtg catgaatttg tcacattctc ctgcccgtgc gctgacaagg gtccagcctc
 421 cgatgacccc cgcagcaaac acaagttaa gatccacacg tactccagcc ccagcttttg
 481 tgaccactgt gggctactgc tgatggact catccaccag gggatgaaat gtgacacctg
 541 catgatgaat gtgcacaagc gctgcgtgat gaatgttccc agcctgtgtg gcacggacca
 601 cagggagcgc cgcggccgca tctacatcca ggcccacatc gacagggacg tcctcattgt
 661 cctcgtaaga gatgctaaaa accttgtaac tatggacccc aatggcctgt cagatcccta
 721 cgtaaaaactg aaactgattc ccgatcccaa aagtggagagc aaacagaaga ccaaaacat
 781 caaatgctcc ctcaaccctg agtggaatga gacatttaga ttccagctga aagaatcgga
 841 caaagacaga agactgtcag tagagatttg ggattgggat ttgaccagca ggaatgactt
 901 catgggatct ttgtcctttg ggatttctga acttcagaag gccagtgttg atggctgggt
 961 taagtacttg agccaggagg aaggcgagta cttcaatgtg cctgtgccac cagaagggaag
 1021 tgaggccaat gaagaactgc ggcagaaatt tgagaggggc aagatcaqtc agggaaacca
 1081 ggtcccggaa gaaaagacga ccaacactgt ctccaaattt gacaacaatg gcaacagaga
 1141 ccggatgaaa ctgaccgatt ttaacttcct aatggtgctg gggaaaaggca gctttggcaa
 1201 ggtcatgctt tcagaacgaa aaggcacaga tgagctctat gctgtgaaga tcctgaagaa
 1261 ggacgtttgt atccaagatg atgacgtgga gtgcaactat gtggagaagc ggtgtgtggc
 1321 cctgcctggg aagccgccct tcctgaccca gctccactcc tgcttccaga ccatggaccg
 1381 cctgtacttt gtgatggagt acgtgaatgg gggcgacctc atgtatcaca tccagcaagt
 1441 cggccgggtt aaggagcccc atgctgtatt ttacgtgca gaaattgcc atcggtctgtt
 1501 cttcttacag agtaagggca tcaattaccg tgacctaaaa cttgacaacg tgatgctcga
 1561 ttctgaggga cacatcaaga ttgcccattt tggcatgtgt aaggaaaaca tctgggatgg
 1621 ggtgacaacc aagacattct gtggcactcc agactacatc gccccgaga taattgctta
 1681 tcagccctat gggaaagtcg tggattgtgt ggcatttggg gtccctgtgt atgaaatgtt
 1741 ggtgtggcag gcaccctttg aaggggagga tgaagatgaa ctcttccaat ccatcatgga
 1801 acacaacgta gcctatccca agtctatgtc caagggaagc gtggccatct gcaaagggtc
 1861 gatgaccaa caccagcgca aacgtctgtg ttgtggacct gaaggcgaac gtgatataca
 1921 agagcatgca tttttcgggt atattgattg ggagaaactt gaacgcaaa agatccagcc
 1981 cccttataag ccaaaagcta gagacaagag agacacctcc aacttcgaca aagagttcac
 2041 cagacagcct gtggaactga cccccactga taaactcttc atcatgaact tggaccaaaa
 2101 tgaatttgct ggcttctctt atactaacc agagtttgct ataatgtgt aggtgaatgc

2161 aaactccatc gttgagcctg ggggtgtaaga cttcaagcca agcgtatgta tcaattctag
 2221 tcttccagga ttcacgggtg acatgctggc attcaacatg tggaaagctt gtcttagagg
 2281 cctttcttgt atgtgtagct tgctagtgtt ttttctacat ttgaaaatgt ttagttaga
 2341 ataagcgcat tatccaatta tagaggtaga attttccaaa cttccagaaa ctcataaat
 2401 gaacagacaa tgtcaaaact actgtgtctg ataccaaaat gcttcagtat ttgtaatttt
 2461 tcaagtccaga agctgatgtt cctggtaaaa gtttttacag ttattctata atattcttct
 2521 tgaatgctaa gcatgagcga tatttttaaa aattgtgagt aagcttcgga attc

(2) INFORMATION FOR SEQ ID NO:2974:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3321 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2974:

1 cagagccggc gcaggggaag cgcccggggc cccgggtgca gcagcgcccg ccgcctcccg
 61 ggccctcccg gcccgagcc cggggtcccg ggcccgggg cggcacctc tcgggctccg
 121 gctccccg cgcaagatgg ctgaccggc tgccggggcg ccgcccagcg agggcgagga
 181 gagcaccgtg cgcttcgccc gcaaaggcgc cctccggcag aagaacgtgc atgaggtcaa
 241 gaaccacaaa ttcaccgccc gcttcttcaa gcagcccacc ttctgcagcc actgcaccga
 301 cttcatctgg ggcttcggga agcagggatt ccagtgcgaa gtttgctgct ttgtggtgca
 361 caagcggtgc catgaatttg tcacattctc ctgcctggc gctgacaagg gtccagcctc
 421 cgatgacccc cgcagcaaac acaagtttaa gatccacacg tactccagcc ccacgttttg
 481 tgaccactgt gggctactgc tgtatggact catccaccag gggatgaaat gtgacacctg
 541 catgatgaat gtgcacaagc gctgctgat gaatgttccc agcctgtgtg gcacggacca
 601 cacggagcgc cgccggcgca tctacatcca ggcccacatc gacagggacg tctctattgt
 661 cctcgtaaga gatgctaata accttgatcc tatggacccc aatggcctgt cagatcccta
 721 cgtaaaactg aaactgattc ccgatcccaa aagtgcagagc aaacagaaga ccaaaaccat
 781 caaatgctcc ctcaaccctg agtggaatga gacatttaga ttccagctga aagaatcgga
 841 caaagacaga agactgtcag tagagatttg ggattgggat ttgaccagca ggaatgactt
 901 catgggatct ttgtcctttg ggatttctga acttcagaag gccagtgttg atggctggtt
 961 taaagtactg agccaggagg aagcgagta cttcaatgtg cctgtgccac cagaaggaa
 1021 tgaggccaat gaagaactgc ggcagaaatt tgagagggcc aagatcagtc agggaaacca
 1081 ggtcccgga gaaaagacga ccaacactgt ctccaaattt gacaacaatg gcaacagaga
 1141 ccgatgaaa ctgaccgatt ttaacttctc aatggtgctg gggaaaggca gctttggcaa
 1201 ggtcatgctt tcagaacgaa aaggcacaga tgagctctat gctgtgaaga tctgaagaa
 1261 ggaaggttg atccaaagat atgacgtgga gtgcactatg gtggagaagc ggggtgtggc
 1321 cctgcctggg aagccgccc tctgaccca gctccactcc tgcttcaga ccatggaccg
 1381 cctgtacttt gtgatggagt acgtgaatgg gggcgacctc atgtatcaca tccagcaagt
 1441 cggccgggtt aaggagcccc atgctgtatt ttacgtgca gaaattgcca tcggctgtgt
 1501 cttcttacag agtaagggca tcatttaccg tgacctaaaa cttgacaacg tgatgctcga
 1561 ttctgaggga cacatcaaga ttgccgattt tggcatgtgt aaggaaaaca tctgggatgg
 1621 ggtgacaacc aagacattct gtggcactcc agactacatc gccccgaga taattgctta
 1681 tcagccctat ggggaagtccg tggattgggt ggcatttgga gtctgtgt atgaaatgtt
 1741 ggctgggcag gcaccctttg aaggggagga tgaagatgaa ctctccaat ccatcatgga
 1801 acacaacgta gcctatccca agtctatgtc caaggaagct gtggccatct gcaaagggct
 1861 gatgacaaa caccagagca aacgtctggg ttgtggacct gaaggcgaac gtgatataa
 1921 agagcatgca tttttccggt atattgattg ggagaaactt gaacgcaaag agatccagcc
 1981 ccctataag ccaaaagctt gtggcgaaaa tgcgaaaaac ttcgaccgat ttttaccg
 2041 ccatccacca gtcctaacc ctcccgacca ggaagtcatc aggaatattg accaatcaga
 2101 attcgaagga ttttcttttg ttaactctga atttttaaaa cccgaagtca agagctaagt
 2161 agatgtgtag atctccgtcc ttcatttctg tcattcaagc tcaacggcta ttgtggtgac
 2221 atttttatgt ttttcattgc caagtgtcat ccatgtttga ttttctgatg agactagagt
 2281 gacagtgttt cagaacccaa atgtcctcag gtagtttgga gcatctctat gagatgggat
 2341 tatgcagatg gcctatggaa aatgcagctg cataattaac acattatcaa agtctctta
 2401 caatttattt tccgcagcat gtcagctaag tagaccaat ggggagagaa aatgcctgct
 2461 ttctttccct ctttttctgc actgccatat tcaccccaa ccatccaatc tgtggataat
 2521 tggatgtag cggtactctt ccacttccgg tcttgagct tggcttgat ccaagtgtat
 2581 ggttgctttg cctaagagga atccctctat ttcacctgt ctggaggcac cagaccttga
 2641 aaagaacatg ctcaaaataa aatgttatct gttatttttg taaactcaaa gttaagatga
 2701 tcaaagttct aaaattccaa gaatgtgctt ttagacggtc tcaatctaaa agcacttcaa
 2761 ggggtcaaa ggaaccagc ttggtgctac ctcaagtgtg tagtttctga tactttatgt
 2821 cttgtctcac cctcatcccc aaactacttg aaaaggcat ttggcaccac tctctgaaac

2881 aacacagtc a ctctagcaag gcccccaaag ggccctgggt ttacattaca tttcaaactt
 2941 tatttgcttt ggggttttgt ttctgttgtt gttcaaatgc aaaaaaaga aaaaaaaag
 3001 aaaaaaaaag gtgactcaca ttgttacaca tgctttaaaa tatgtgttca aatgttatta
 3061 accacaatga cgacctgttt tgatttaacc aagaagacgg ctgcggagcc tagcagactc
 3121 aggcctgtgg gaatgggatt gtgtacaaat ctaggittgt tactggcttc agaaagctaa
 3181 ttaagtgtc tgaaaaagac accgttttctt gaaacaaaga tggttgtatt cctcactttg
 3241 atgttggttt gcaagatgtt tgtggaaatg ttcatttgta tctggatctc tgttatgtgc
 3301 catttttctt ctgcatcg a g

(2) INFORMATION FOR SEQ ID NO:2975:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 621 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2975:

1 gtccttcatt ccttcacaa ctatttatcc agcaccgttt ctgggcacag ggctccagcg
 61 atgggtcccaa caggatcaat gacctctggg gaccaagttc agttcttggg gagttctcca
 121 gtgcctctcg atgtaggatg aaccgttggc atgtctcact gacgtgtggc ccttctgttg
 181 tttctcttgg ctccaggacc cccgcagcaa acacaagttt aagatccaca cgtactccag
 241 cccacgcttt tgtgacctt gtgggtcact gctgtatgga ctcatccacc aggggatgaa
 301 atgtgacagt aagtactttc tctctctggg ggcatctgct gatggcagaa gcaatgggaa
 361 gggctgcttc cacttgggtt ggggtccagg tctgccatac attccccctt gtcctcgttg
 421 gggctgggtg accagttatc tgttgcgtca taatgatcct cccaccccaa aacactgtga
 481 ctgaagacaa taaacatttt tttagctcat gactctgcaa ggcagtcctt tgaatctggg
 541 ctggcctcag ctgatgtcac gcatgttcat aaagcatgaa ctcattgggtc atgggtggatt
 601 agcagatgga ggtgggctgg g

(2) INFORMATION FOR SEQ ID NO:2976:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1559 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2976:

1 acatcaagga gacgagtcct ggtggatag taatgtcttt aacacccctc tagcatttat
 61 taatttcctc tcttaacaaa taaaagatgc ccttcagtca gatgcttagg acagatgacg
 121 cacctagaga tattttaata atgtagatac tcttgcgtgt caaactcaga ccaaaatgac
 181 gataggcttt tttggccccc agagggtgca caaatacgac cagaatttgt gaagacgagt
 241 cagaaatgaa tgaaatttgg aaaaatattg atctactgaa atccttcttc cccacactat
 301 tagccctatg ttacagttgg ggaacaggag tctgttttga gaggggatgg acagaaggta
 361 gggagtcttc ttccaaacgt gcaggaggca agcaaagcca agaattctct ctgtggtagg
 421 tttagagacat ataaaaataaa gatcgctcct cccctacctc tgcagaacgt gtgtgtgtat
 481 gtgtgtgtaa gtgtgtgcgg ccacaagcct ttccgaatga gtgacagcgg gagcccatcc
 541 ctccaggaga cgcgtgcaga atgaccaatg ggatggatgg ggggtggatgg gtaccagtct
 601 ccgcagaggc cgggggtgga attcgtctgc cccacccctc tccaccgct ccccttcgcc
 661 ccgtaggtct ttccactctc gctcctcccc tgggcacatc tctgaacgc agccccggg
 721 gccgaggacg ggggtgggtg gggggcgagg ctcggtccg acgaccccg gctgcggtcc
 781 cggcgtgca gagctgcggc tgtgcacgct tagccgcgag gccgcggta gcccgggcgc
 841 cgatatgtaa agcagctggc agcgtctggc ggggcctggg cgcgactgca aatgaggagg
 901 gcgcgggctg gcccgggggc tccgcctccc tccccgcag ctggggccag cggtgccaa
 961 gcgcactggg cgagcggcag cagctgggag aggtgacagc cccggtccg cgcgcggcc
 1021 gccagagccg gcgcaggga agcgcggcg gcccggggtg cagcagcggc cgcgcctcc
 1081 cgcgcctccc cgcgcggcag cccgcgggct cgcgcggcgg ggcgcggcacc tctcgggctc
 1141 cggctccccg cgcgcgaagat ggctgacccg gctgcggggc cgcgcggcag cgaggcgag
 1201 gagagcaccg tgcgtctcgc ccgcaaggc gccctcaggc agaagaacgt gcatgaggt
 1261 aagaaccaca aattcaccgc ccgcttcttc aagcagccca ccttctgcag ccactgcacc
 1321 gacttcatct ggtgaccccc caggcactcc ggccccaggc cagcgcgcgc caggaccccc
 1381 tctcgcgcgc ctctgcgcgc tccgcacctt ggaccccggc tccccggact ccccgctccg
 1441 gaccctgtcg cccgggactc ccggtatggc agtcttagcc gttgccctgt cccacccctg
 1501 gtccagacg ggcgcgcgcg ggcgcctcct gccctctcct gctctcaggc gcctctaga

(2) INFORMATION FOR SEQ ID NO:2977:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2510 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2977:

```
1 gtcgactgca ggtcaacgga cacatcaagg agagagtcct ggttggatag taatgtcttt
61 aacacccctc tagcatttat taatttctct tcttaacaaa taaaagatga cttcagttga
121 agatccttag gacagatgac ggcacctgga gatattttaa taatgtagat accctcttgc
181 tgttcaaact cagacaaaaa gagatggctt tttttccccc agagggtgca caaatacgac
241 agaatttttg aagacgagtc agaaatgaat gaaatttggg aaaatattga tctactgaaa
301 tccctcctcc ccacactatt agccctatgt tacagtggg gaaacggagt cgttttgcag
361 aggggatgga cagaaggtag ggagtctctt tccaacgtgc aggaggcaag caaagccaag
421 catcttctct gtgtggagt tagagacata taaaataaga tcgctcctcc cctacctctg
481 caaacgctgt gtgtgtatgt gtgtgtaacg tgtgtgcggc cacaagcctt tccgaatgag
541 tgacagcggg agcccatccc tccaggagac gcgtgcagaa tgaccaatgg gatggatggg
601 ggtggatggg taccgtctcc gcgagggcgg ggtggaattc gctgcgcccc accccttcca
661 cccgctcccc ttcgccccgt aggtctttcc actctcgtcc ctccccggg cacatctcct
721 gaacgcagct ccggggggcg aggacggggg ggggtggggg gcgaggtcgc ggtccgacga
781 ccccgggctg cggctccggc gctgcagagc tgcggctgtg cagccttagc cgcgaggccc
841 gcggtagccc gggcgccgat atgtaagca gctggcagcg ctggggcggg cctgggcgcg
901 atgcaaatga ggaggcggg gctggccggg ggctccgcct cctcccccg cagctggggc
961 cagcgggtgc aagcgagct ggacgagcgg cagcagctgg gcgagtgaca gccccggctc
1021 cgcgcgccgc ggccgccaga gccgcgcgag gggaagcgcc cgcgccccg ggtgcagcag
1081 cgccgcgcgc ctcccgcgcc tccccggccc gcagcccgcg gtcccgcgcc cccggggcgc
1141 gcacctctcg ggctccggct ccccgcgcgc aagatggctg acccggtcgc gggcgccgcg
1201 ccgagcgagg gcgaggagag caccgtgcgc ttcgcccga aaggcgccct caggcagaag
1261 aacgtgcatt aggtcaagaa ccacaaattc accgcccgt tcttcaagca gccacccttc
1321 tgcagccact gcaccgact catctggtgg agcgcgcgcg caaggcacct tcccgggccc
1381 ccgaggcagc gccgcgccaa gggaccccc ctccgcccct tgcgccctcc gcaccctgga
1441 ccccgcgctc ccggaactcc cgtccgggac cctgctgcgg ggaactcccg atggacagtc
1501 ctgccgttgc cctgtcccca ccctgggtccc aggaacgggg cgccctctgc cctctcctgc
1561 tctcaggcgc ctctagagcg cccaggggca gcgtgcgggg cgcccttgct ccacctgact
1621 aggagcgcg cgggtctgtg cctgcccctg agggcagcgc ctcggtgct ctcggaccgc
1681 ggggttcccta tctctccgcc tgcctccggg cgcgaggagc cctcgcccc cacccttgt
1741 ttccgggggg gggggggcgc gccctgggtg tcttctctta tctctgcggg catgggacat
1801 cctttctcac tctctgtgc ctcggcagcg cctctgttta tctccattg cctccccga
1861 gggcctggtt cccctttcca ctctcgggtc acatcactgc gggcccctt cttccccagt
1921 cctccagta gtggggcatt ctttctctct tcccagtcct cctccagag gacaccaccg
1981 ccgcggggtc actctcgccc tccctctgaa tgcgtcttta tctcttctct tttccgaggg
2041 tgctcggggc atctatgggt acatctgtcg cctgccttca gcccctacct tcttctgacg
2101 gctccccact atcccgccac ctggtggtcg cagcctctc tcttctgacg gagtgaaggc
2161 agatcggggg tacagccgag ctcccaccta ccccaaaaa ggcggaagac tcttgggac
2221 ccgctgtgtg ctgggagttt gcacctgggg tacagaggca gggagggaag cgggtgactc
2281 tgtgggtaac tagctggagg ctgggcccc gggctgcctg acatacact ccttctgctt
2341 ttgcaggggc ttcggaagc agggattcca gtgccaaggt aggtcttggg gctttgggga
2401 tgcattttgt gggaagagag ggtgaaaaat actttataga agaagttact gagttaggca
2461 gagagtgaat gaatcacgtt ggtcggagtg acctccagg ctagggaattc
```

(2) INFORMATION FOR SEQ ID NO:2978:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2163 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi)SEQUENCE DESCRIPTION: SEQ ID NO:2978:

```
1 aaagcgacca tgtatcctga gtggaagtcg acgttcgatg cccacatcta tgagggggcg
61 gtcacccaga ttgtgcta atgcggcgagc gaggagccag tgtctgaggt gaccgtgggt
121 gtgtcgggtg tgcccgagcg ctgcaagaag aacaatggca aggtgagtt ctggctggac
181 ctgcagctc agggcaaggt gttgatgtct gttcagtatt tcttgaggga cgtggattgc
241 aaacagtcta tgcgcagtga ggacgaggcc aagttcccaa cgatgaaccg ccgcgagacc
301 atcaaacagg ccaaaatcca ctacatcaag aaccatgagt ttatcgccac cttctttggg
361 caacccacct tctgttctgt gtgcaaagac tttgtctggg gcctcaacaa gcaaggctac
421 aatatcaggc aatgtaacgc tgccatccac aagaaatgca tcgacaagat catcgccaga
481 tgcactggca ccgcgcccaa cagccgggac actatatccc agaaagaacg cttcaacatc
541 gacatgcgc accgcttcaa ggttcacaac tacatgagcc ccacctctg tgaccactgc
601 ggcagcctgc tctggggact ggtgaagcag ggattaaagt gtgaagactg cggcatgaat
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661 gtgcaccata aatgccggga gaaggtggcc aacctctgcg gcataacca gaagcttttg
721 gctgaggcct tgaaccaagt caccagaga gcctcccgga gatcagactc agcctcctca
781 gagcctgttg ggatatatca gggtttcgag aagaagaccg gagttgctgg ggaggacatg
841 caagacaaca gtgggaccta cggcaagatc tgggagggca gcagcaagtg caacatcaac
901 aacttcatct tccacaaggt cctgggcaaa ggcagcttcg ggaaggtgct gcttgagag
961 ctgaagggca gaggagagta ctttgccatc aagccctca agaaggatgt ggtcctgatc
1021 gacgacgacg tggagtgcac catggttgag aagcgggtgc tgacacttgc cgcagagaat
1081 ccccttctca cccacctcat ctgcacctc cagaccaagg accacctgtt ctttgtgatg
1141 gagttcctca acggggggga cctgatgtac cacatccagg acaaaggccg ctttgaactc
1201 taccgtgcc agttttatgc cgtgagata atgtgtggac tgcagtttct acacagcaag
1261 ggcattcatc acagggacct caaactggac aatgtgctgt tggaccggga tggccacatc
1321 aagattgccg actttgggat gtgcaaaag aacatattcg gggagagccg ggcagcacc
1381 ttctgcccga cccctgacta tatcgccctc gagatcctac agggcctgaa gtacacattc
1441 tctgtggact ggtggtcctt cggggtcctt ctgtacgaga tgcctattgg ccagtcctcc
1501 ttccatggtg atgatgagga tgaactcttc gactccatcc gtgtggacac gccacattat
1561 ccccgctgga tcaccaagga gtccaaggac atcctggaga agctctttga aagggaacca
1621 accaagaggc tgggagtgc gggaaacatc aaaaaccacc ccttcttcaa gaccataaac
1681 tggactctgc tggaaaagcg gaggttggag ccaccttca gggccaaagt gaagtcaccc
1741 agagactaca gtaactttga ccaggagttc ctgaacgaga aggcgcgcct ctcctacagc
1801 gacaagaacc tcatcgactc catggaccag tctgcattcg ctggcttctc ctttgtgaac
1861 cccaaattcg agcacctcct ggaagattga ggttcctgga cagatcaggc tagccctgcc
1921 ctccacccac acctgcccgc tccccacgat aagcaccagt gggactgtgg tgacttctgc
1981 tgctggcccc gccctgccc ccagagcgtc cttgctgccc gctctcatgg gctctcatgg
2041 tacttctctc gtgaactgtg tgtgaatctg ctttctctct gccttcggag ggaaattgta
2101 aatcctgtgt ttcattactt gaatgtagtt atctattgaa aatatacttt agagcacat
2161 gga

(2) INFORMATION FOR SEQ ID NO:2979:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2104 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2979:

1 tgcgcgcgcg acccttggcg cctgcccctg caacggggagc cccactgcag gccccaccat
61 ggcgccgttc ctgcgcacgc ccttcaactc ctatgagctg ggctccctgc agggccgagga
121 cgaggcggaac cagcccttct gtgccgtgaa gatgaaggag ggcctcagca cagagcgtgg
181 gaaaacactg gtgcagaaga agccgaccat gtatcctgag tggaaagtca cgttcgatgc
241 ccacatctat gaggggcgcg tcatccagat tgtgctaagt cgggcagcag aggagccagt
301 gtctgaggtg accgtgggtg tctcgggtgt ggccgagcgc tgcaagaaga acaatggcaa
361 ggctgagttc tggctggacc tgcagcctca ggccaagggt ttgatgtctg ttcagtattt
421 cctggaggagc gtggattgca acaaatctat gcgcagtga gacgaggcca agttcccaac
481 gatgaaccgc cgcggagcca tcaaacaggc caaaatccac tacatcaaga accatgagtt
541 tatcgccacc ttctttgggc aacccacctt ctgttctgtg tgcaaaagact ttgtctgggg
601 cctcaacaag caaggctaca aatgcaggca atgtaacgct gccatccaca agaaatgcat
661 cgacaagatc atcggcagat gcactggcac cgcggccaac agccgggaca ctatattcca
721 gaaagaacgc ttcaacatcg acatgccgca ccgcttcaag gttcacaact acatgagccc
781 caccttctgt gaccactgcg gcagcctgct ctggggactg gtgaagcagg gattaaagtg
841 tgaagactgc ggcataaatg tgcaccataa atgcccggag aaggtggcca acctctcgcg
901 catcaaccag aagcttttgg ctgaggcctt gaaccaagtc acccagagag cctcccgagg
961 atcagactca gcctcctcag agcctgttgg gatatatcag ggtttcgaga agaagaccgg
1021 agttgtctgg gaggacatgc aagacaacag tgggacctac ggcaagatct gggagggcag
1081 cagcaagtgc aacatcaaca acttcatctt ccacaaggtc ctgggcaaa gacagcttcg
1141 gaaggtgctg cttggagagc tgaaggcgag aggagagtac tctgccatca aggcctcaa
1201 gaaggatgtg gtcctgatcg acgacgacgt ggagtgcacc atggttgaga agcgggtgct
1261 gacacttgcc gcagagaatc cctttctcac ccacctcctc tgcaccttcc agaccaagga
1321 ccacctgttc tttgtgatgg agttcctcaa cgggggggac ctgatgtacc acatccagga
1381 caaaggccgc tttgaactct accgtgccac gttttatgcc gctgagataa tgtgtggact
1441 gcagtttcta cacagcaagg gcacatttta cagggacctc aaactggaca atgtgtgtt
1501 ggaccgggag ggcacatca agattggcg ctttgggatg tgcaaaagaga acatattcgg
1561 ggagagccgg gccagcacct tctggcgac cctgactat atcgcccctg agatcctaca
1621 gggcctgaag tacacattct ctgtggactg gtgtctttc ggggtccttc tgtacgagat
1681 gctcattggc cagtccccct tccatggtga tgatgaggat gaactcttc agtccatccg
1741 tgtggacacg ccacattatc cccgctggat caccaaggag tccaaggaca tctgggaa
1801 gctctttgaa agggaaccaa ccaaggagct ggggaatgac ggaaacatca aaatccacc

1861 cttcttcaag accataaact ggactctgct ggaaaagcgg aggttggagc cacccttcag
 1921 gcccaaagtg aagtcaccca gagactacag taactttgac caggagtcc tgaacgagaa
 1981 ggcgcgctc tcctacagcg acaagaacct catcgactcc atggaccagt ctgcattcgc
 2041 tggcttctcc ttigtgaacc ccaaatcga gcacctcctg gaagattgag gtctctggac
 2101 agat

(2) INFORMATION FOR SEQ ID NO:2980:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2146 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2980:

1 cccaagatgg aagggagcgg cgccgcgctc cgcctcaagg cgcattacgg gggggacatc
 61 ttcataccca gcgtggacgc cgccacgacc ttcgaggagc tctgtgagga agtgagagac
 121 atgtgtcgtc tgcaccagca gcacccgctc accctcaagt ggggtggacag cgaaggtgac
 181 ccttgccacg tgctctccca gatggagctg gaagagcgtt tccgcctggc ccgtcagtgc
 241 agggatgaag gcctcatcat tcatgttttc ccgagcacc ctagcagacc tggcctgcca
 301 tgtccggagg aagacaaatc tatctaccgc cggggagcca gaagatggag gaagctgtac
 361 cgtgcccaac gccacctctt ccaagccaag cgctttaaca ggagagcgta ctgcggtcag
 421 tgcagcgaga ggatatgggg cctcgcgagg caaggctaca ggtgcataca ctgcaaactg
 481 ctgggtccata agcgtgccca cgccctcgtc ccgctgacct gcaggaagca tatggattct
 541 gtcatgcctt cccaagagcc tccagtagac gacaagaacg aggacgccga ccttccttcc
 601 gaggagacag atggaattgc ttacatttcc tcatcccgga agcatgacag cattaagac
 661 gactcggagg accttaagcc agttatcgat gggatggatg gaatcaaat ctctcagggg
 721 cttgggctgc aggactttga cctaatacaga gtcacggggc gcgggagcta cgccaaggtt
 781 ctcctggtgc ggttgaaaga gaatgaccaa atttacgcca tgaaagtggg gaagaaagag
 841 ctgggtgcag atgacgagga tattgactgg gtacagacag agaagcacgt gtttgagcag
 901 gcattccaga accccttctt ggtcggatta cactcctgct tccagacgac aagtcggtt
 961 ttcctggtca ttgagtacgt caacggcggg gacctgatgt tccacatgca gaggcagagg
 1021 aagctccctg aggagcacgc caggttctac gcggccgaga tctgcatcgc cctcaacttc
 1081 ctgcacgaga gggggatcat ctacagggac ctgaagctgg acaacgtcct cctggatgag
 1141 gacgggcaca tcaagtcac agactacggc atgtgcaagg aaggcctggg ccctggtgac
 1201 acaacgagca ctttctgcgg aaccccgaa taccatcgcc ccgaaatcct gcggggagag
 1261 gagtacgggt tcagcgtgga ctgggtggcg ctgggagtc tcatgtttga gatgatggcc
 1321 gggcgctccc cgttcgacat catcacggac aacccggaca tgaacacaga ggactacctt
 1381 ttccaagtga tcctggagaa gcccatccgg atcccccggt tcctgtccgt caaagcctcc
 1441 catgttttaa aaggattttt aaataaggac ccaaaagaga ggctcggctg ccggccacag
 1501 actggatttt ctgacatcaa gtcccacgcg ttcttcgcga gcatagactg ggacttgctg
 1561 gagaagaagc aggcgctccc tccattccag ccacagatca cagacgacta cggtctggac
 1621 aactttgaca cacagttcac cagcgagccc gtgcagctga cccagacga tgaggatgcc
 1681 ataaagagga tcgaccagtc agagttcgaa ggctttgagt atatcaacct attattgctg
 1741 tccaccgagg agtcggtgtg aggcgcgctg cgtctctgtc gtggacacgc gtgattgac
 1801 ctttaactgt atccttaacc accgcatatg catgccaggc tgggcacggc tccgagggcg
 1861 gccagggaca gacgcttgcg ccgagacgc agagggaagc gtcagcgggc gctgctggga
 1921 gcagaacagt cctcacacc tggcccgga ggcagcttcg tgctggagga acttgctgct
 1981 gtgctgctg cgcgcgggat ccgcggggac cctgccgagg gggctgtcat gcggtttcca
 2041 aggtgcacat ttccacgga aacagaactc gatgcactga cctgctccgc caggaaagtg
 2101 agcgtgtagc gtcctgagga ataaaatgtt ccgatgaaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2981:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1423 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2981:

1 gggccggcgg cgccggcgac tctggacgcg agccggggcc ttcccgtgga tcgccccagc
 61 tgcggcgggc gtcgcggccg ccccggggtg gcaacttcgt gtgcgcggc gccgagccc
 121 gaggcgctg tagccacat ctcccgagcg acccccgggc ccgcccgcgc gcgaggaggc
 181 ccggccacca cctactggc cgcttgccc atcccagtc ggcgcgcgc gaaccccgtc
 241 cgcgcgcgcc ggggagcggc gcccccgcc ctgcccgcgc gacccttggc gctgcccct
 301 gcaacgggag cccactgca gcccaccca tggegcggtt cctgcgcate gccttcaact
 361 cctatgagct gggctccctg caggccgagg acgagggcaa ccagcccttc tgtgcctgta

421 agatgaagga ggcgctcagc acagagcgtg ggaaaacact ggtgcagaag aagccgacca
481 tgtatcctga gtggaagtcg acgttcgatg cccacatcta tgagggggcg gtcacccaga
541 ttgtgctaata ggcggcagca gaggagccag tgtctgaggt gaccgtgggt gtgtcggtgc
601 tggccgagcg ctgcaagaag aacaatggca aggtctgagt ctggctggac ctgcagcctc
661 aggccaaaggt gttgatgtct gttcagtatt tcctggagga cgtggattgc aaacagtcta
721 tgccgagtcg ggcagagggc aagttcccaa cgatgaaccg ccgaggagcc atcaaacagg
781 ccaaaatcca ctacatcaag aaccatgagt ttatcgccac cttctttggg caaccacct
841 tctgttctgt gtgcaaaagc tttgtctggg gcctcaacaa gcaaggctac aaatgcaggc
901 aatgtaacgc tgccatccac aagaaatgca tcgacaagat catcggcaga tgcactggca
961 ccgcgcccaa cagccgggac actatatccc agaaagaacg cttcaacatc gacatgccgc
1021 accgcttcaa ggttcacaac tacatgagcc ccacctctg tgaccactgc ggcagcctgc
1081 tctggggact ggtgaagcag ggattaaagt gtgaagactg cggcatgaat gtgcaccata
1141 aatgccggga gaaggtggcc aacctctgag gcatcaacca gaagcttttg gctgaggcct
1201 tgaaccaagt caccagaga gcctcccgga gatcagactc agcctcctca gacctgttg
1261 ggatatatca gggtttcgag aagaagaccg gagttgctgg ggaggacatg caagacaaca
1321 gtgggacctc cggcaagatc tgggagggca gcagcaagtg caacatcaac aacttcatct
1381 tccacaaggt cctgggcaaa ggcagcttcg ggaaggtgct gct

(2) INFORMATION FOR SEQ ID NO:2982:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2244 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2982:

1 ctccccgccc cgaccatggt agtgttcaat ggccttctta agatcaaaat ctgcgagggc
61 gtgagcttga agccacagc ctggctcgctg cgccatcgcg tgggaccccg gccgcagact
121 ttcttctctg acccctacat tgccctcaat gtggacgact cgcgcatcgg ccaaacggcc
181 accaagcaga agaccaacag ccggcgctgg cagcagagat tcgtcaccga tgtgtgcaac
241 ggacgcaaga tcgagctggc tgtctttcac gatgccccca taggctacga cgaactctgtg
301 gccaaactgca ccattcagtt tgaggagctg ctgcagaacg ggagccgcca cttcgaggac
361 tggattgata tggagccaga aggaagagtg tatgtgatca tcgatctctc agggctcgtc
421 ggtgaagccc cttaaagacaa tgaagagcgt gtgttcaggg aacgcacgag gccgagggaag
481 cggcaggggg ccgtcaggcg cagggtccat cagggtcaacg gccacaagtt catggccacc
541 tatcttcggc agcccaccta ctgctcccat tgcaagagact tcatctgggg tgcatagga
601 aagcagggat accagtgtca agtctgcacc tgcgtggtcc acaagcggtg ccacgagctc
661 ataatacaca agtgtgctgg gttaaagaag caggagaccg ccgaccaggt gggctcccag
721 cggttcagcg tcaacatgcc ccacaagttc ggtatccaca actacaaggt ccctaccttc
781 tgcgatacct gtgggtccct gctctgggga ctcttgccgc aggggtttgca tggtaaagtc
841 tgcaaaatga atgttcaccg tcgatgtgag accaacgtgg ctcccaactg tggagtggat
901 gccagaggaa tcgccaaagt actggccgac ctgggctgta ccccgacaga aatcaccac
961 agcggccaga gaaggaaaaa gctcattgct ggtgcccagt ccccgacagg tgcttctgga
1021 agctcaccat ctgaggaaag tcgatccaag tcagcaccga cctccccttg tgaccaggaa
1081 ataaaagaac ttgagaacaa cattcggaag gccttgcatt ttgacaaccg aggagaggag
1141 caccgggagc catcgtctcc tgatggccag ctgatgagcc ccgggtgagaa tggcgaagtc
1201 cggcaaggcc aggcgaagcg cctgggctg gatgagttca acttcatcaa ggtgttgggc
1261 aaagcgagct ttggcaaggt catgttggca gaactcaagg gcaaagatga agtatatgct
1321 gtgaaggtct taaagaagga cgtcatcctt caggatgatg acgtggactg cacaatgaca
1381 gagaagagga ttttggtctt ggcaaggaaa caccgctacc ttaccacact ctactgtcgc
1441 ttccagacca aggaccgcct ctttttcgtc atggaatatg taaatggtgg agacctcatg
1501 ttccagattc agcgtctccc aaaattcgac gagcctcgtt caccggttcta tgctgcagag
1561 gtcacatcgg ccctcatggt cctccatcag catggagtca tctacaggga tttgaaactg
1621 gacaacatcc ttctggatgc agaaggtcac tgcaagctgg ctgactctcg gatgtgcaag
1681 gaagggattc tgaatggtgt gacgaccacc acgttctgtg ggactcctga ctacatagct
1741 cctgagatcc tgcaggagtt ggagtatggc ccctccgtgg actggtgggc cctgggggtg
1801 ctgatgtacg agatgatggc tggacagcct ccctttgagg ccgacaatga ggacgacctc
1861 tttgagtcca tcctccatga cgagtgctg taacctgtct ggctcagcaa ggaggctgtc
1921 agcatcttga aagctttcat gacgaagaat ccccaacaag gcctgggctg tgtggcatcg
1981 cagaatggcg aggacgcat caagcagcac ccattcttca aagagattga ctgggtgtct
2041 ctggagcaga agaagatcaa gccacccttc aaaccacgca ttaaaaccaa aagagacgct
2101 aataattttg accaagactt taccgggaa gagccgttac tcaccctgtg ggacgaagca
2161 attgtaaagc agatcaacca ggaggaattc aaaggtttct cctactttgg tgaagacctg
2221 atgcctgtag agccactgc agtt

(2) INFORMATION FOR SEQ ID NO:2983:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 218 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2983:
 1 agccggcttc tggaaactcc ctgtgtgagt gtgaggggaat gagtatgaac aaggcacatt
 61 atgtcttact tattgtatta gtttcctgtt gctgctgtag caagttacca ccaatttatg
 121 gcttaaaagca attcaaatatt tttctcttga attcttaaga tcagaagttc taaatgagtc
 181 taatggggct aaaatcaagg tgttaggcaa aggcagct

(2) INFORMATION FOR SEQ ID NO:2984:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1830 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2984:

1 tgcagctgga gatccgggct cccacagcag atgagatcca cgtaactgtt ggcgaggccc
 61 gtaacctaat tcctatggac cccaatggtc tctctgatcc ctatgtgaaa ctgaagctca
 121 tcccagaccc tcggaacctg acgaaacaga agaccggaac ggtgaaagcc acgctaaacc
 181 ctgtgtggaa tgagaccttt gtgttcaacc tgaagccagg ggatgtggag cgccggctca
 241 gcgtggaggt gtgggactgg gaccggacct cccgcaacga ctcatgagg gcatgtcct
 301 ttggcgtctc ggagctgctc aaggcgcccg tggatggctg gtacaagtta ctgaaccagg
 361 aggaggcgga gtattacaat gtgcgggtgg ccgatgtga caactgcagc ctctccaga
 421 agtttgagcg ttgtaactac cccttgaat tgtatgagcg ggtgcggatg gcccctctt
 481 cctctcccat cccctccctt tccctagtc ccaccgaccc caagcgctgc ttctcgggg
 541 cgagtcacag acgctgcac atctccgact tcagcttcct catggttcta ggaaaaggca
 601 gttttgggaa ggtgatgctg gccgagcgca ggggctctga tgagctctac gccatcaaga
 661 tcttgaaaaa ggacgtgatc gtccaggacg acgatgtgga ctgcacgctg gtggagaaac
 721 gtgtgctggc gctggggggc cggggtcctg gcggccggcc ccacttcctc acccagctcc
 781 actccacctt ccagaccccg gaccgctgt atttctgtat ggagtacgtc accgggggag
 841 acttgatgta ccacattcaa cagctgggca agtttaagga gccccatgca gcgttctacg
 901 cggcagaaat cgctatcgcc ctcttcttcc ttcacaatca gggcatcatc tacagggacc
 961 tgaagctgga caatgtgatg ctggatgctg agggacacat caagatcact gactttggca
 1021 tgtgtaagga gaacgtcttc cccgggacga caaccgcac ctctgcggg acccggact
 1081 acatagcccc ggagatcatt gcctaccagc cctatgggaa gtctgtcgat tgggtgtcct
 1141 ttggagtctt gctgtatgag atgttgccag gacagcctcc ctctgatggg gaggacgagg
 1201 aggagctgtt tcaggccatc atggaacaaa ctgtcaccta ccccaagtgc ctttcccggg
 1261 aagcctggcg catctgcaag ggttctctga ccaagcacc agggaagcgc ctgggctcag
 1321 ggctgtatgg ggaacctacc atccgtgcac atggcttttt ccgctggatt gactgggagc
 1381 ggctggaacg attggagatc ccgctcctt tcagaccccg cccgtgtggc cgcagcggcg
 1441 agaactttga caagttcttc acgcgggcgg cgccagcgct gacccctcca gaccgcctag
 1501 tcctggccag catcgaccag gccgatttcc agggcttcac ctacgtgaac cccgacttgc
 1561 tgcacccgga tgcccgcagc cccaccagcc cagtgcctgt gccgctcatg taatctacc
 1621 cgccgccaact aggtgtcccc aacgtccctt ccgccgtgcc ggccgagacc ccacttcacc
 1681 cccaacttca ccaccccttg tccattcta gatcctgcac ccagcattc cagctctgcc
 1741 cccgcgggtt ctagacgccc ctcccaagcg ttcctggcct tctgaactcc atacagcctc
 1801 tacagccgtc ccgcgttcaa gacttgagcg

(2) INFORMATION FOR SEQ ID NO:2985:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2196 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2985:

1 cggggtgtct tgggcccggg cggtgttaga ggcggcggcg cctacgggca gtgggaggag
 61 ccgcgcgggt ccggtgctc cggcgagggc acccttgggt cggcgctgcg ggcaggtggc
 121 aggtaggtgg cggacggcgg cggttctccg gcaagcgagc gcggcggagt cccccacggc
 181 gcccgaaagc ccccccgca cccccggcct ccagcgttga ggcgggggag tgaggagatg
 241 ccgacccaga gggacagcag caccatgtcc cacacggtcg caggcggcgg cagcggggac
 301 cattccacc aggtccgggt gaaagcctac taccgcgggg atatcatgat aacacatttt
 361 gaaccttcca tctcttttga gggcctttgc aatgaggttc gagacatgtg ttcttttgac
 421 aacgaacagc tcttaccat gaaatggata gatgaggaag gagaccgtg tacagtatca
 481 tctcagttgg agttagaaga agcctttaga ctttatgagc taaacaagga ttctgaactc
 541 ttgattcatg tgttcccttg tgtaccagaa cgtcctggga tgcccttgtcc aggagaagat

601 aaatccatct accgtagagg tgcacgccgc tggagaaagc tttattgtgc caatggccac
661 actttccaag ccaagcgttt caacaggcgt gctcactgtg ccatctgcac agaccgaata
721 tggggacttg gacgccaagg atataagtgc atcaactgca aactcttggg tcataagaag
781 tgccataaac tcgtcacaat tgaatgtggg cggcattctt tgccacagga accagtgtatg
841 cccatggatc agtcatccat gcattctgac catgcacaga cagtaattcc atataatcct
901 tcaagtcatg agagtttggg tcaagttggg gaagaaaaag aggcaatgaa caccagggaa
961 agtggcaag ctcatccag tctaggtctt caggattttg atttgctccg ggtaaataggga
1021 agaggaagtt atgccaaggt actgttgggt cgattaaaaa aaacagatcg tatttatgca
1081 atgaaagtgg tgaaaaaaga gcttggttaat gatgatgagg atattgattg ggtacagaca
1141 gagaagcatg tgtttgagca ggcacccaat catcctttcc ttgttgggct gcattcttgc
1201 tttcagacag aaagcagatt gttctttggt atagagtatg taaatggagg agacctaag
1261 tttcatatgc agcgacaaag aaaacttcct gaagaacatg ccagatttta ctctgcagaa
1321 atcagtcctag cattaataa tcttcatgag cgagggataa tttatagaga ttgaaaatg
1381 gacaatgtat tactggactc tgaaggccac attaaactca ctgactacgg catgtgtatg
1441 gaaggattac ggccaggaga tacaaccagc actttctgtg gtactcctaa ttacattgct
1501 cctgaaatgt taagaggaga agattatggt ttcagtgttg actggtgggc tcttggagtg
1561 ctcatgtttg agatgatggc aggaaggtct ccatttgata ttgttgggag ctccgataac
1621 cctgaccaga acacagagga ttatctcttc caagttatgt tggaaaaaa aattcgcata
1681 ccacgttctc tgtctgtaaa agctgcaagt gttctgaaga gttttcttaa taaggacct
1741 aaggaacgat tgggttgtca tctcacaaca ggatttctg atattcaggg acaccgttc
1801 ttccgaaatg ttgattggga tatgatggag caaaaaacagg tggtagctcc ctttaaacca
1861 aatatttctg gggaatttgg tttggacaac tttgattctc agtttactaa tgaacctgtc
1921 cagctcactc cagatgacga tgacattgtg aggaagattg atcagcttga atttgaaggt
1981 tttgagtata tcaatcctct tttgatgtct gcagaagaat gtgtctgac ctcatttttc
2041 aaccatgtat tctactcatg ttgccattta atgcatggat aaacttgcgt caagcctgga
2101 tacaattaac ctttttatat ttgccaccta caaaaaaaca cccaatatct tctctttag
2161 actatatgaa tcaattatta catctcgacc cggaat

(2) INFORMATION FOR SEQ ID NO:2986:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2389 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2986:

1 gaattcggac ggaggaggca gaatggccag tcgaggggag cttagggcgtg gcctttcccc
61 agggctgcct cgactcctgc acctgtcccg agggctggcc tgagacggga ctcccggttc
121 tcccgtcgcg aagcaggccc cccggggccg gggcagcggc gccggcatgt cgtctggcac
181 catgaagtgc aatggctatt tgagggtccg catcggtgag gcagtggggc tgcagcccac
241 ccgctggtcc ctgcgccact cgctcttcaa gaagggccac cagctgctgg acccctatct
301 gacgggtgagc gtggaccagg tgcgcgtggg ccagaccagc accaagcaga agaccaacaa
361 acccagctac aacgaggagt ttgctgctaa cgtcaccgac ggcggccacc tcgagttggc
421 cgtcttccac gagacccccc tgggctacga cttcgtggcc aactgcaccc tgcagttcca
481 ggagctcgtc ggcacgaccg cgccctcgga caccttcgag ggttgggtgg atctcgagcc
541 agaggggaaa gtatttgggt taataaccct tacggggagt ttactgaag ctactctcca
601 gagagaccgg atcttcaaac attttaccag gaagcgccaa agggctatgc gaagcgagt
661 ccaccagatc aatggacaca agttcatggc cagctatctg aggcagccca cctactgctc
721 tcaactgagg gagtttatct ggggagtggt tgggaaacag ggttatcagt gccaagtgtg
781 cacctgtgct gtccataaac gctgccatca tctaattggt acagcctgta cttgccaaaa
841 caataattaac aaagtggatt caaagattgc agaacagagg ttccggatca acatcccaca
901 caagttcagc atccacaact acaaagtgc aacattctgc gatcactgtg gctcactgct
961 ctgggggaata atgcgacaag gacttcagtg taaaatagt aaaaatgaatg tgcataatcg
1021 atgtcaagcg aacgtggccc ctaactgtgg ggtaaatgag gtggaacttg ccaagacct
1081 ggcagggatg ggtctccaac ccggaaatat ttctccaacc tcgaaactcg tttccagatc
1141 gaccctaaga cgacagggaa aggagagcag caaagaagga aatgggattg ggggttaattc
1201 ttccaaccga cttggtatcg acaactttga gttcatccga gtgttgggga aggggagttt
1261 tgggaaggtg atgcttgcaa gagtaaaaga aacaggagac ctctatgctg tgaaggtgct
1321 gaagaaggac gtgattctgc tggatgatga tgtggaatgc accatgaccg agaaaaggat
1381 cctgtctctg gcccgcaatc accccttcct cactcagttg ttctgtgctt ttcagacccc
1441 cgatcgtctg ttttttggta tggagtgtgt gaatgggggt gacttgatgt tccacattca
1501 gaagtctcgt cgttttggatg aagcacgagc tcgcttctat gctgcagaaa tcatttcggc
1561 tctcatgttc ctccatgata aaggaatcat ctatagagat ctgaaacttg acaatgtcct
1621 gttggaccac gagggtcact gtaaaactggc agacttcgga atgtgcaagg aggggatttg
1681 caatggtgtc accacggcca cattctgtgg cagccagac tatatcgctc cagagatcct
1741 ccaggaaatg ctgtacgggc ctgcagtaga ctggtgggca atgggcgtgt tgctctatga
1801 gatgctctgt ggtcacgcgc cttttgaggg agagaatgaa gatgacctct ttgagccat
1861 actaatgatg gaggtgtct accctacctg gctccatgaa gatgccacag ggatcctaaa
1921 atctttcatg accaagaacc ccaccatgag cttgggcagc ctgactcagg gaggcgagca

1981 cgccatcttg agacatcctt tttttaagga aatcgactgg gccagctga accatcgcca
 2041 aatagaaccg cttttcagac ccagaatcaa atcccagagaa gatgtcagta attttgacc
 2101 tgacttcata aaggaagagc cagtttttaac tccaattgat gagggacatc ttccaatgat
 2161 taaccaggat gagtttagaa acttttccta tgtgtctcca gaattgcaac catagcctta
 2221 tggggagtga gagagagggc acgagaaccc aaaggaatag agattctcca ggaatttcct
 2281 ctatcggacc ttcccagcat cagccttaga acaagaacct taccttcaag gagcaagtga
 2341 agaactctgt cgaaggatgg aactttcaga tatcaactat ttagagtc

(2) INFORMATION FOR SEQ ID NO:2987:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3742 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2987:

1 gaattccttc tctcctctc ctcgcccttc tctcgcctt cctcctctc ctcgcccttc
 61 cctcccgatc ctcateccct tgccctcccc cagcccaggg acttttcccg aaagttttta
 121 tttccgtct gggctctcgg agaaagaagc tcttggtcca gcggctgcaa aactttcctg
 181 ctgcgcgcgc gccagccccc gccctccgct gcccgccctt gcgccccgcc gagcgatgag
 241 cgcctctcgg gtcctgcggc cgcacagtc gctgtgccc gtggcggcgg cagctgccgc
 301 agcggccgcc gcaactggcc cagggtccgg gccggggccc gcgcggttct tggctcctgt
 361 cgcggccccc gtcgggggca tctcgttcca tctgcagatc ggcttgagcc gtgagccggg
 421 gctgtgctg caggactcgt ccgggggacta cagcctggcg cacgtccgcg agatggcttg
 481 ctccattgtc gaccagaagt tcctgaatg tggtttctac ggaatgtatg ataagatcct
 541 gcttttttc cgtgacccta cctctgaaaa catccttcag ctgggtgaaag cggccagtga
 601 tatccaggaa ggcgatctta ttgaagtggg cttgtcacgt tccgccacct ttgaagactt
 661 tcagattcgt cccacgcctc tctttgttca ttcatacaga gctccagctt tctgtgatca
 721 ctgtggagaa atgctgtggg ggctggtagc tcaaggtctt aaatgtgaag ggtgtggtct
 781 gaattaccat aagagatgtg catttaaaat acccaacaat tgcagcgtg tgaggcggag
 841 aaggctctca aacgtttccc tcaactgggt cagcaccatc cgcacatcat ctgctgaact
 901 ctctacaagt gccctgatg agccccctt gcaaaaaatc ccatcagagt cgtttatttg
 961 tcgagagaa aggtcaaat ctcaatcata cattggacga ccaattcacc ttgacaagat
 1021 ttgatgtct aaagttaaa tgccgcacac atttgtcatc cactctaca cccggcccac
 1081 agtgtgccc tactgcaaga agctttctgaa ggggcttttc aggcagggtc tgcagtgcga
 1141 agattgcaga ttcaactgcc ataaacgttg tgcaccgaaa gtaccaaaac actgccttgg
 1201 cgaagtgaac attaatggag atttgcttag cctgggggca gactctgatg tggctatgga
 1261 agaagggagt gatgacaatg atagtgaag gaacagtggg ctcatggatg atatggaaga
 1321 agcaatggct caagatgcag agatggcaat ggcagagtgc cagaacgaca gtggcgagat
 1381 gcaagatcca gaccagacc acgaggacgc atcagtcctc caacaagcaa
 1441 caatatccca ctcatgaggg tagtgacgtc tgtcaaacac acgaagagga aaagcagcac
 1501 agtcatgaaa gaaggatgga tgggtccacta caccagcaag gacacgctgc ggaaacggca
 1561 ctattggaga ttggatagca aatgtattac cctctttcag aatgacacag gaagcaggta
 1621 ctacaaggaa attcctttat ctgaaatttt gtctctgga ccagtaaaaa cttcagcttt
 1681 aattcctaatt ggggccaatc ctcatgtttt cgaatcact acggcaaatg tagtgtatta
 1741 tgtgggagaa aatgtgtgta atccttccag cccatcacca aataacagt tctcaccag
 1801 tggcgttggt cgagatgtgg ccaggatgtg ggagatagcc atccagcatg ccttatgcc
 1861 cgtcattccc aagggtcctt ccgtgggtac aggaaccaac ttgcacagag atatctctgt
 1921 gagtatttca gtatcaaatt gccagattca agaaaatgtg gacatcagca cagtatatca
 1981 gatttttcct gatgaagtac tgggttcttg acagtttgga attgtttatg gaggaataca
 2041 tcgtaaaaa ggaagagatg tagctattaa aatcattgac aaattacgat ttccaacaaa
 2101 acaagaaaagc cagcttcgta atgaggttgc aattctacag aaccttcac accctggtgt
 2161 tgtaaatttg gagtgtatgt ttgagacgcc tgaagagatg tttgtgttta tggaaaaact
 2221 ccatggagac atgctggaaa tgatcctgtc aagtgaagag ggcaggttgc cagagcacat
 2281 aacgaagttt ttaattactc agatactcgt ggctttgcgg caccctcatt ttaaaaaat
 2341 cgttcactgt gacctcaaac cagaaaatgt gttgctagcc tcagctgac cttttcctca
 2401 ggtgaaactt tgtgattttg gttttgcccg gatcattgga gagaagtctt tccggaggtc
 2461 agtgggtggg acccccgtt accctggctc tgaggtccta aggaacaagg gctacaatcg
 2521 ctctctagac atgtgtgtctg ttgggtgcat catctatgta agcctaagcg gcacattccc
 2581 atttaagtga gatgaagaca tacacgacca aattcagaat gcagcttcca tgtatccacc
 2641 aaatccctgg aaggaaatat ctcatgaagc cattgatctt atcaacaatt tgctgcaagt
 2701 aaaaatgaga aagcgctaca gtgtggataa gaccttgagc cacccttggc tacaggacta
 2761 tcagacctgg ttagatttgc gagagctgga atgcaaaatc ggggagcgt acatcaccca
 2821 tgaagatgat gacctgaggt gggagaagta tgcaggcgag cagcggctgc agtaccacc
 2881 acacctgac aatccaagt ctgaccacag tgacactcct gagactgaag aaacagaaat
 2941 gaaagccctc ggtgagcgtg tcagatcct ctgagttcca tctcctataa tctgtcaaaa
 3001 cactgtggaa ctaataaata catacggtca ggtttaacat ttgccttgca gaactgccat
 3061 tattttctgt cagatgagaa caaagctgtt aaactgttag cactgttgat gtatctgagt
 3121 tgccaagaca aatcaacaga agcatttgta tttgtgtga ccaactgtgt tgtattaaca

3181 aaagttccct gaaacacgaa acttggttatt gtgaatgatt catgttatat ttaatgcatt
 3241 aaacctgtct ccactgtgcc ttgcaaatc agtgtttttc ttactggagc ttcatTTTTg
 3301 taagagacag aatgtatctg tgaagtagtt ctgtttgggtg tgtccattg gtgtttgcat
 3361 tgtaaacaaa ctcttgaaga gtcgattatt tccagtgttc tatgaacaac tccaaaaccc
 3421 atgtgggaaa aaaatgaatg aggagggtag ggaataaaat cctaagacac aaatgcatga
 3481 acaagtttta atgtatagtt ttgaatcctt tgcttgctg gtgtgctca gtatatTTaa
 3541 actcaagaca atgcacctag ctgtgcaaga cctagtgtct ttaagcctaa atgccttaga
 3601 aatgtaaaact gccatatata acagatacat ttccctcttt cttataatac tctgtgttac
 3661 tatggaaaat cagctgtctc gcaacctttc acctttgtgt atttttcaat aataaaaaat
 3721 attcttgtca aaaaaaaaa aa

(2) INFORMATION FOR SEQ ID NO:2988:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2705 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2988:

1 tgctcgctcc agggcgcaac catgtcgcca tttcttcgga ttggcttgct caactttgac
 61 tgcgggtcct gccagtcttg tcagggcgag gctgttaacc cttactgtgc tggctcgctc
 121 aaagagtatg tcgaatcaga gaacgggcag atgtatatcc agaaaaagcc taccatgtac
 181 ccaccttggg acagcacttt tgatgcccat atcaacaagg gaagagtcac gcagatcatt
 241 gtgaaaggca aaaacgtgga cctcatctct gaaaccaccg tggagctcta ctgctggct
 301 gagagggtga ggaagaacaa cggaagaca gaaatatggt tagagctgaa acctcaaggc
 361 cgaatgctaa tgaatgcaag atactttctg gaaatgagtg acacaaagga catgaatgaa
 421 tttgagacgg aaggcttctt tgccttgcat cagcgccggg gtgccatcaa gcaggcaaag
 481 gtccaccacg tcaagtgtca cgagtctact gccaccttct tcccacagcc cacattttgc
 541 tctgtctgct acgagtttgt ctggggcctg aacaacacag gctaccagtg cgcacaatgc
 601 aatgcagcaa ttcacaagaa gtgtattgat aaagttatag caaagtgcac aggatcagct
 661 atcaatagcc gagaaacat gtccacaag gagagattca aaattgacat gccacacaga
 721 tttaaagtct acaattacaa gagcccgacc ttctgtgaac actgtgggac cctgctgtgg
 781 ggactggcac ggcaaggact caagtgtgat gcatgtggca tgaatgtgca tcatagatgc
 841 cagacaaagg tggccaacct ttgtggcata aaccagaagc taatggctga agcgctggcc
 901 atgatttga gactcaaca ggcctcgctc ttaagagata ctgaacagat cttcagagaa
 961 ggtccggttg aaattgtctt ccatgtctcc atcaaaaatg aagcaaggcc gccatgttta
 1021 ccgacaccgg gaaaaagaga gcctcagggc atttctggg agtctccgtt ggatgaggtg
 1081 gataaaatgt gccatcttcc agaacctgaa ctgaacaaag aaagaccatc tctgcagatt
 1141 aaactaaaaa ttgaggattt tatcttgcaac aaaatgttgg ggaaaggaaag tttttggcaag
 1201 gtcttctctg cagaattcaa gaaaaccaat caatttttctg caataaaggc cttaaagaaa
 1261 gatgtgtgtc tgatggacga tgatgttgag tgcacgatgg tagagaagag agttctttcc
 1321 ttggcctggg agcatccgtt tctgacgcac atgttttgta cattccagac caaggaaaac
 1381 ctcttttttg tgatggagta cctcaacgga ggggacttaa tgtaccacat ccaaagctgc
 1441 cacaagtctg acctttccag agcgagcttt tatgtctgct aaatcattct tggctctcag
 1501 ttccttcatt ccaaaggaa atgtctacag gacctgaagc tagataacat cctgttagac
 1561 aaagatggac atatcaagat cgcggatttt ggaatgtgca aggagaacat gttaggagat
 1621 gccaaagaca ataccttctg tgggacacct gactacatcg ccccagagat cttgtgggtg
 1681 cagaaatata accactctgt ggactgttgg tcttcgggg ttctccttta tgaaatgctg
 1741 attggtcagt cgcttttcca cgggcaggat gaggaggagc tcttccactc catccgcag
 1801 gacaatccct tttaccacag gtggctggag aaggaagcaa aggaccttct ggtgaagctc
 1861 ttcgtgcgag aacctgagaa gaggtctggc gtgaggggag acatccgcca gcacctttg
 1921 tttcgggaga tcaactggga ggaacttgaa cggaaggaga ttgaccaccc gttccggccg
 1981 aaagtgaat caccatttga ctgcagcaat ttcgacaaag aattcttaaa cgagaagccc
 2041 cggctgtcat ttgcccagag agcactgatc aacagcatgg accagaatat gttcaggaac
 2101 ttttcttcca tgaaccccgg gatggagcgg ctgatctct gaatcttgcc cctccagaga
 2161 caggaaagaa ttgctctct cctgggaac tggttcaaga gacactgctt gggttccttt
 2221 ttcaacttgg aaaaagaaag aaacactcaa caataaagac tgagaccctg tcgcccccat
 2281 gtgactttat ctgtagcaga aaccaagtct acttcaacta tgacgatgcc gtgtgtctcg
 2341 tctcttgaca tgtctcacag acgctcctga agttaggtca ttactaacca tagttattta
 2401 cttgaaagat gggctctccg acttggaag gtttcaagac ttgatactgc aataaattat
 2461 ggctcttcac ctgggcgcga actgctgatc aacgaaatgc ttgttgatc aggggcaaac
 2521 ggagtacaga cgtctcaaga ctgaaacggc cccattgcct ggtctagtag cggatctcac
 2581 tcagccgcag acaagtaatc actaaccggt tttattctat cctatctgtg gatgtataaa
 2641 tgctgggggc cagccctgga taggttttta tgggaattct ttacaataaa catagcttgt
 2701 acttg

(2) INFORMATION FOR SEQ ID NO:2989:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1779 base pairs

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2989:

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1 atgcccagca ggaccgaccc caagatggaa gggagcggcg gccgcgtccg cctcaaggcg
61 cattacgggg gggacatctt catcaccagc gtggacgccg ccacgacctt cgaggagctc
121 tgtgaggaag tgagagacat gtgtcgtctg caccagcagc acccgctcac cctcaagtgg
181 gtggacagcg aaggtgaccc ttgcacggtg tcctcccaga tggagctgga agaggctttc
241 gccttgcccc gtcagtgcag ggatgaaggc ctcatcattc atgttttccc gagcaccctt
301 gagcagcctg gcctgcccag tccgggagaa gacaaatcta tctaccgccg gggagccaga
361 agatggagga agctgtaccg tgccaacggc cactctctcc aagccaagcg ctttaacagg
421 agagcgtact gcggtcagtg cagcgagagg atatggggcc tcgcgaggca aggctacagg
481 tgcatacaact gcaaaactgct ggtccataag cgctgccacg gcctcgtccc gctgacctgc
541 aggaagcata tggattctgt catgccttcc caagagcctc cagtagacga caagaacgag
601 gacgccgacc ttccttccga ggagacagat ggaattgctt acatttcctc atcccgaag
661 catgacagca ttaaagacga ctccgaggac cttaagccag ttatcgatgg gatggatgga
721 atcaaaatct ctccaggggtg tgggctgcag gactttgacc taatcagagt catcgggcgc
781 gggacgtacg ccaaggttct cctggtgcgg ttgaagaaga atgaccaa attacgcatg
841 aaagtgtgta agaaagagct ggtgcatgat gacgaggata ttgactgggt acagacagag
901 aagcacgtgt ttgagcaggg atccagcaac cccttctcgg tcggattaca ctctgcttc
961 cagacgacaa gtcggttggt cctggtcatt gactacgtca acggcgggga cctgatgttc
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1681 ccagacgatg aggatgccat aaagaggatc gaccagtcag agttcgaagg ctttgagtat
1741 atcaaccat tattgctgtc caccgaggag tcggtgtga
  
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(2) INFORMATION FOR SEQ ID NO:2990:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 239 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2990:

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1 tgtcatgcct tcccagagc ctccaggatg gctgtcctcc gacctcctcc acctccaggc
61 tctagatggc aaagcccact tagcaaaagc cacctgctct gtgatgatgg gactggctcc
121 tgcctgtggg ttcgaaagc ccatccacc ctctacagcc tcttgctcct ctgcaatgac
181 tgtgccttca cctgggggtt ccccagagac tagtgagagt catcgggcgt ggaagctat
  
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(2) INFORMATION FOR SEQ ID NO:2991:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 38644 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2991:

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1 ggagcaagag gtggttgggg ggggaccatg gctgacgttt tcccgggcaa cgactccacg
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```


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 36807 gtggacagcg aaggtgaccc ttgcacgggt tcttcccaga tggagctgga agaggctttc
 36867 cgcttgcccc gtcagtgcag ggtgaaggc ctcatcttcc atgttttccc gagcaccctt
 36927 gagcagcctg gcctgccatg tccgggagaa gacaaatcta tctaccgccc gggagccaga
 36987 agatggagga agctgtaccg tgccaacggc cactcttccc aagccaagcg ctttaacagg
 37047 agagcgtact gcggtcagtg cagcgagagg atatggggcc tcgcgaggca aggctacagg
 37107 tgcatacaact gcaaaactgct ggtccataag cgctgccacg gcctcgtccc gctgacctgc
 37167 aggaagcata tggattctgt catgccttcc caagagcctc cagtagacga caagaacgag
 37227 gacgccgacc ttccttccga ggagacagat ggaattgctt acatttctc atcccggag
 37287 catgacagca ttaaagacga ctcggaggac cttaaagccag ttatcgatgg gatggatgga

37347 atcaaaatct ctcaggggct tgggctgcag gactttgacc taatcagagt catcgggcgc
37407 gggacgtacg ccaagggttct cctgggtcgg ttgaagaaga atgaccaaat ttacgccatg
37467 aaagtgggtga agaaagagct ggtgcatgat gacgaggata ttgactgggt acagacagag
37527 aagcactgtgt ttgagcaggc atccagcaac cccttcctgg tcggattaca ctctgcttc
37587 cagacgacaa gtcggttggt cctggtcatt gactacgtca acggcgggga cctgatgttc
37647 cacatgcaga ggcagaggaa gtcctctgag gagcagcca ggttctacgc ggccgagatc
37707 tgcacgcgcc tcaacttctt gcacgagagg gggatcatct acagggacct gaagctggac
37767 aacgtcctcc ttgatgcgga cggacacatc aagctcacag actacggcat gtgcaaggaa
37827 ggcctgggcc ctggtgacac aacgagcact ttctgcgga cccgaatta catcgcccc
37887 gaaatcctgc ggggagagga gtacgggttc agcgtggact ggtgggcgt gggagtcctc
37947 atgtttgaga tgatggccgg gcgctccccg ttcgacatca tcaccgacaa cccggacatg
38007 aacacagagg actacctttt ccaagtgatc ctggagaagc ccatccggat ccccggttc
38067 ctgtccgtca aagcctccca tgttttaaaa ggatttttaa ataaggacct caaagagagg
38127 ctggctgcc ggccacagac tggattttct gacatcaagt cccacgcgtt cttccgcagc
38187 atagactggg acttgctgga gaagaagcag gcctccctc cattccagcc acagatcaca
38247 gacgactacg gtcctggacaa ctttgacaca cagtccacca gcgagcccg gcagctgacc
38307 ccagacgatg aggatgccat aaagaggatc gaccagtcag agttcgaagg ctttgagtat
38367 atcaaccat tattgctgtc caccgaggag tcggtgtga
38406 tgtcatgcct tcccaagagc ctccaggatg gctgtcctcc gacctcctcc acctccaggc
38466 tctagatggc aaagcccact tagcaaaagc cactgctct gtgatgatgg gactggctcc
38526 tgcctgtggg ttcgaaaagc ccatccacc ctctacagcc tctgtcctc ctgcaatgac
38586 tgtgccttca cctgggggtt cccagagac tagtgagagt catcgggcgt ggaagctat

(2) INFORMATION FOR SEQ ID NO:2992:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1649 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2992:

1 gccacttctt ctgggccac gaggcagctg tcccatgctc tgctgagcac ggtggtgcca
61 tgccctctgca actcctctctg ttgctgatcc tactgggccc tggcaacagc ttgcagctgt
121 gggacacctg ggcagatgaa gccagaaaag ccttgggtcc cctgcttgcc cgggaccgga
181 gacaggccac cgaatatgag tacctagatt atgatttctt gccagaaacg gagcctccag
241 aaatgctgag gaacagcact gacaccactc ctctgactgg gcctggaacc cctgactcta
301 ccaactgtgga gcctgctgca aggcgttcta ctggcctgga tgcaggaggg gcagtcacag
361 agctgaccac ggagctggcc aacatgggga acctgtccac ggattcagca gctatggaga
421 tacagaccac tcaaccagca gccacggagg cacagaccac tccactggca gccacagagg
481 cacagacaac tcgactgacg gccacggagg cacagaccac tccactggca gccacagagg
541 cacagaccac tccaccagca gccacggaag cacagaccac tcaaccaca ggcctggagg
601 cacagaccac tgcaccagca gccatggagg cacagaccac tgcaccagca gccatggaag
661 cacagaccac tccaccagca gccatggagg cacagaccac tcaaccaca gccatggagg
721 cacagaccac tgcaccagaa gccacggagg cacagaccac tcaaccaca gccacggagg
781 cacagaccac tccactggca gccatggagg cctgtgccac agaaccagc gccacagagg
841 ccctgtccat ggaacctact accaaaagag gtctgttcat acccttttct gtgtcctctg
901 ttactcaca gggcattccc atggcagcca gcaatttctc cgtaactac ccagtggggg
961 cccagacca catctctgtg aagcagtgcc tgctggccat cctaactctg gcgctgggtg
1021 ccactatctt ctctgtgtgc actgtggtgc tggcgggtcc cctctcccgc aagggccaca
1081 tgtaccccggt gcgtaattac tccccaccg agatggtctg catctcatcc ctgttgctctg
1141 atgggggtga ggggccctct gccacagcca atgggggctt gtccaaggcc aagagcccgg
1201 gcttgacgcc agagcccagg gaggaccgtg agggggatga cctcacctg cacagcttcc
1261 tcccttagct cactctgcca tctgttttgg caagaccca cctccacggg ctctcctggg
1321 ccacccctga gtgccagac cccaatccac agctctgggc ttcctcggag accctggggg
1381 atggggatct tcagggaagg aactctggcc acccaaacag gacaagagca gcttggggcc
1441 aagcagacgg gcaagtggag ccacctctt cctccctccg cggatgaagc ccagccacat
1501 ttacgcccag gtccaaggca ggaggccatt tacttgagac agattctctc ctttttctctg
1561 tcccccatct tctctgggtc cctctaacat ctcccatggc tctccccgct tctcctggtc
1621 actggagtct cctcccatg taccgaag

(2) INFORMATION FOR SEQ ID NO:2993:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 703 base pairs
- (B) TYPE: nucleic acid

(1) SEQUENCE	(2) SEQUENCE	(3) SEQUENCE	(4) SEQUENCE	(5) SEQUENCE	(6) SEQUENCE
1 caacaaatct	tgggcaagaa	gcgagaccat	tctccttttt	ctctgggtcac	tctgtctctt
61 caggggggtc	cctctggccc	cgactgtcca	ttgtctctga	agtaatgtct	tggcctttot
121 cagttttggc	cccaccctaaa	accgaagaac	tgtctcccgac	aagctctctac	tgggtctctca
181 gtgtttttcac	agtttatggga	acccaagaac	agtgtcagac	ctaggagggt	cccactacc
241 accctgtctt	tatcaatggt	gtcaccaaa	ctgtcacaaa	caatgggggt	tggtgtgtca
301 catggccctg	cctaagtaac	caattctctg	cttctctcct	ccacacacag	ccattggggg
361 ttgctcggt	ccgggactgc	cgcaggggg	gccacagcag	tgctctggcg	cgtgggtctg
421 gaccttgtca	ctaaagcaga	gaagccactt	ctcttggggc	cacgaggcag	ctgtcccatg
481 ctctgctgag	cacggtggta	agtgtctggc	tgcaaaacca	cagggagtgg	ctggaggtcc
541 ccatggggcca	agggccttgc	ttatagcttc	tggcagggcc	gggtaggacc	gccaggccct
601 tcttgagctg	cagcacctgg	gagggggcaa	ctgaggctcc	tccgactcaa	gactaaagtc
661 ttctctgaagt	ctgtggccct	attctgtgac	tcttctgaat	cct	

1	tagaagaagt	taaagggcc	tcttgatgg	ctttattcat	gttgatgagt	aataataata
61	actgctactg	gctgaggatc	ttctccatcc	caggcatgtc	agggatgcct	aagtcctccg
121	ttcctgtctc	agaccagaca	tcttcagct	gtggcagtag	aggggtgttg	tctaggggtg
181	ttcctaagcc	caagggtgaa	actgtcttga	ctacctccg	ccattgtctg	cctctcaggt
241	gccatgcctc	tgcaactcct	cctgttgctg	atcctactgg	gccttgcaa	cagcttgcat
301	ctgtgggaca	cctgggcaata	tgaagccgag	aaagccttgg	gtccccctga	tgccccggag
361	cgagagacgg	ccaggaata	tgagtacctt	gattatgatt	tctggccagt	aacggagcct
421	ccagaaatgc	tgaggaacag	cactgacacc	actcctctga	ctgggcttgg	aacccttgag
481	tctaccactg	tgagagcctg	tgcaaggcgt	tctactggcc	tggtatgcagg	aggggcagtc
541	acagagctga	ccacggagct	ggccaactat	gggaacctgt	ccacggattc	agcagctatg
601	gagatacaga	ccactcaacc	aggcacacg	gaggcacaga	ccactcaacc	agtccccacg
661	gaggcacaga	ccactccact	ggcagccaca	gaggcacaga	caactcgact	gacggccacg
721	gaggcacaga	ccactccact	ggcagccaca	gaggcacaga	ccactccacc	agcagccacg
781	gaagcacaga	ccactcaacc	cacaggcctg	gaggcacaga	ccactgcacc	agcagccatg
841	gaggcacaga	ccactgcacc	agcagccatg	gaggcacaga	ccactccacc	agcagccatg
901	gaggcacaga	ccactcaaac	cacagccatg	gaggcacaga	ccactgcacc	agaagccacg
961	gaggcacaga	ccactcaacc	cacagccacg	gaggcacaga	ccactccact	ggcagccatg
1021	gaggccttgt	ccacagaacc	cagtgccaca	gaggccttgt	ccatggaacc	tactaccaaa
1081	agaggtctgt	tcataccctt	ttctgtgtct	tctgttactc	acaagggcat	tcccatggca
1141	gccagcaatt	tgtecgtaa	ctaccacagt	ggggccccag	accacactct	tgtgaagcag
1201	tgctgtgtgg	ccatcctaat	cttggcgctg	gtggccacta	tcttctctgt	gtgactgttg
1261	gtgtggggg	tccgctctct	cgcgaagggc	cacatgtacc	ccgtgcgtaa	ttactcccc
1321	accgagatgg	tctgcatctc	atccctgttg	cctgatgggg	gtgagggggc	ctctgccaca
1381	gccaatgggg	gcctgtccaa	ggccaagagc	ccgggctctg	cgccagagcc	cagggaggac
1441	cgtaggggg	atgacctcac	cttcgcacgc	ttctctcctt	agctcactct	gccacttgtt
1501	ttggcaagac	ccagctcca	cgggtctctc	gtggccaccc	ctgagtgccc	agaccccaat
1561	ccacagctct	gggttctctc	ggagaccctt	gggatgggg	atcttcaggg	aaggaaactt
1621	ggcaccccaa	acaggacaag	agcagcctgg	ggccaagcag	acgggcaagt	ggagccacct
1681	ctttctctcc	tccgcggtat	aagccagcc	acatttcagc	cgaggtccaa	ggcaggaggc
1741	catttacttg	agacagattc	ttctcttttt	cctgtccccc	atcttctctg	ggctcctcta
1801	acatctccca	tggtctctcc	cgcttctcct	ggtcactgga	gtctctctcc	catgtaccca
1861	aggaagatgg	agctccccca	tcccacagc	actgcactgc	catgtctctt	tggttgccat
1921	ggtcaccaaa	caggaaagtg	acattctaag	ggagagtagt	tgaagagtga	cggacttctg
1981	aggtctgttc	ctgtgtctcc	tctgacttgg	ggagccttgg	gtcttcttgg	gcacctctct
2041	gggaaaaccc	agggtgaggt	tcagcctgtg	agggctggga	tgggtttcgt	gggccccaa
2101	ggcagacctt	tcttttggga	tgtgtggacc	aaggagcttc	catctagtga	caagtgacc
2161	ccagctatcg	ctctttgcct	tccccgttgg	ccactttcca	gggtggactc	tgtcttgttc
2221	actgcagtat	cccaactgca	ggtccagtgc	aggcaataaa	tatgtgatgg	acaaaacgat
2281	agcggaatcc	ttcaaggttt	caaggctgtc	tccttcaggc	agccttcccg	gaattctcca
2341	tccctcagtg	caggatgggg	gctgtctctc	agctgtctgc	cctcagcccc	tggcccccca
2401	ggaagcctct	ttcatgggct	gttaggttga	cttcagtttt	gcctcttggg	caacaggggg
2461	tcttgtacat	ccttgggtga	ccaggaaaag	ttcaggctat	ggggggccaa	agggagggct
2521	gccccctccc	caccagtgac	cactttatct	cactctctcc	attaccacgt	tttggccacc
2581	agagcttttgt	cccccccaac	cctcggaacca	atatccctct	aaacatcaat	ctatctctct
2641	gttaaaagaaa	aaaaaaaaatg	ggactgggag	cagtggtcca	tgctgttaat	cccagcactt

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2701 tgggaggccg aggcaggtag atcacctgag gtcaggagtt caagactagc ctggccaaca
2761 tagtgaaacc ctgtctctac taaaaataca aagattagtc aggtgtggtg gcacatgcct
2821 gtagtcccag ctactgggga ggctgaggca ggagaattgc ttgaaccccg gaagcggagg
2881 gaggttgtag tgagctgaga tcacgctact gcactccagc ctgggtgaca gagtaagact
2941 ccgtctcaaa aaaaaaaaaa aagattcaat gaccctgttt aaagcatggt aaggaagact
3001 ttgttcaagg ggagtgggac tctctcaatc actgcaggga ctgcagctat gggattttgc
3061 agtgggggca tttgggctca actatgagta cagcaggggc aagtgggagc tgatagccag
3121 ggaacagggt tggatatctg cagctggaaa attaccaaga ggaacatca ggggaagggg
3181 aattctggct aaactgactg ctggggatgg gttctcggtc attttctaca ctgacctaac
3241 aggattcata ctggaggcag gccaggggtc tcagacatca ccggggggat ggtggcagat
3301 gaggaacgtg atcagatata ggaggtgatc agatatggga ggtgatcaga tatggagtgg
3361 tggggggagg gttgttgcta agctgactta gcagagttct tgttagaac

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(2) INFORMATION FOR SEQ ID NO:2995:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3409 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2995:

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1 tagaagaagt taaaggcccc tcctggatgg ctttattcat gttgatgagt aataataata
61 actgctactg gctgaggatc ttctccatcc caggcatgtc agggatgcct aagtcgccag
121 tccctgctcc agaccagaca tcttccagct gtggcagtag aggggtggtg tctaggggtc
181 ttgctaagcc caagggtgaa actgtcttga catccctccg cccattgtct cctcctaggt
241 gccatgcctc tgcaactcct cctgttgctg atcctactgg gccctggcaa cagcttgcaag
301 ctgtgggaca cctgggcaga tgaagccgag aaagccttgg gtcccctgct tgcccgggac
361 cggagacagg ccaccgaata tgagtaccta gattatgatt tcctgccaga aacggagcct
421 ccagaaatgc tgaggaaacag cactgacacc actcctctga ctgggcctgg aaccctgag
481 tctaccactg tggagcctgc tgcaaggcgt tctactggcc tggatgcagg aggggagctc
541 acagagctga ccacggagct ggccaacatg gggaacctgt ccacggattc agcagctatg
601 gagatacaga ccactcaacc agcagccacg gaggcacaga ccactcaacc agtgcccacg
661 gaggcacaga ccactccact ggagccacac gaggcacaga caactcgact gacggccacg
721 gaggcacaga ccactccact ggagccacac gaggcacaga ccactccacc agcagccacg
781 gaagcacaga ccactcaacc cacaggcctg gaggcacaga ccactgcacc agcagccatg
841 gaggcacaga ccactgcacc agcagccatg gaagcacaga ccactccacc agcagccatg
901 gaggcacaga ccactcaaac cacagccatg gaggcacaga ccactgcacc agaagccacg
961 gaggcacaga ccactcaacc cacagccacg gaggcacaga ccactccact ggagccatg
1021 gaggcctgtt ccacagaacc cagtgcacac gaggcctgtt ccatggaacc tactaccaaa
1081 agaggtctgt tcataccctt ttctgtgtcc tctgttactc acaagggcat tcccatggca
1141 gccagcaatt tgctcgtcaa ctaccagtg ggggccccag accacatctc tgtgaagcag
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1321 accgagatgg tctgcatctc atccctgttg cctgatgggg gtgaggggac ctctgccaca
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1441 cgtgaggggg atgacctcac cctgcacagc ttctctcctt agctcactct gccatctgtt
1501 ttggcaagac cccacctcca cgggctctcc tgggccaccc ctgagtgcce agaccccaat
1561 ccacagctct gggcttctcc ggagaccctt ggggatgggg atcttcaggg aaggaactct
1621 ggccacccaa acaggacaag agcagcctgg ggccaagcag acgggcaagt ggagccacct
1681 ctttctctcc tccgcggatg aagccagacc acatttcagc cgaggtccaa ggcaggaggc
1741 catttacttg agacagattc tctctttttt cctgtccccc atcttctctg ggtccctcta
1801 acatctccca tggctctccc cgcttctcct ggteactgga gtctctccc catgtaccca
1861 aggaagatgg agctccccca tcccacacgc actgcactgc cattgtcttt tgggtgccat
1921 ggtcaccaaa caggaagtgg acattctaa gaggagtagc tgaagagtga cggacttctg
1981 aggtgttttc ctgctgctcc tctgacttgg ggcagcttgg gtcttcttgg gcacctctct
2041 gggaaaaccc aggggtgaggt tcagcctgtg agggctggga tgggtttcgt gggcccaaa g
2101 ggcagacctt tctttgggac tgtgtggacc catctagtga caagtgaacc
2161 ccagctatcg cctcttgctt tcccctgtgg ccactttcca ggggtggactc tgtcttgttc
2221 actgcagtat cccaactgca ggtccagtgc aggcataaaa tatgtgatgg acaaaacgat
2281 agcggaatcc ttcaaggttt caagcgtgtc tccttcaggc agccttccc gaattctcca
2341 tccctcagtg caggatgggg gctggtcctc agctgtctgc cctcagcccc tggcccccca
2401 ggaagcctct ttcatgggct gttaggttga cttcagtttt gcctcttggg caacaggggg
2461 tcttgtacat ccttgggtga ccaggaaaag ttcaggctat ggggggcccc agggagggct
2521 gcccttctcc caccagtgc cactttattc cacttctctc attaccagat tttggccac

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2581 agagtttgggt cccccccaaa cctcggacca atatecctct aaacatcaat ctatecctct
 2641 gttaaagaaa aaaaaaaatg ggactgggag cagtggctca tgccgtgaat cccagcactt
 2701 tgggaggccg aggcaggtac atcacctgag gtcaggagtt caagactagc ctggccaaca
 2761 tagtgaaacc ctgtctctac taaaaataca aagattagtc aggtgtggtg gcacatgcct
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 2881 gaggttgcag tgagctgaga tcacgtact gcactccagc ctgggtgaca gagtaagact
 2941 ccgtctcaaa aaaaaaaaaa aagattcaat gacccttgtt aaagcatggt aaggaagact
 3001 ttgttcaagg ggagtgggac tctctcaatc actgcaggga ctgcagctat gggattttgc
 3061 agtgggggca tttgggctca actatgagta cagcaggggc aagtgggagc tgatagccag
 3121 ggaacagggt tggatatctg cagctggaaa attaccaaga ggaaacatca ggggaagggg
 3181 aattctggct aaactgactg ctggggatgg gttctcggtc attttctaca ctgacctaac
 3241 aggattcata ctggaggcag gccagggtgc tcagacatca ccggggggat ggtggcagat
 3301 gaggaacgtg atcagatata ggaggtgac agatatggga ggtgatcaga tatggagtgg
 3361 tggggggagg gttgttgcta agctgactta gcagagttct tgttagaac

(2) INFORMATION FOR SEQ ID NO:2996:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9170 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2996:

1 gccacttctt ctgggccac gagcagctg tcccatgctc tgctgagcac ggtggtgcca
 61 tgctctgca actctctctg ttgctgatcc tactgggccc tggcaacagc ttgcagctgt
 121 gggacacctg ggcagatgaa gccagaaaag ccttgggtcc cctgctgccc cgggaccgga
 181 gacaggccac cgaatatgag tacctagatt atgatttccct gccagaaacg gagcctccag
 241 aaatgctgag gaacagcact gacaccactc ctctgactgg gcctggaacc cctgagtcta
 301 cactgtgga gcctgtgca aggcgttcta ctggcctgga tgcaggaggg gcagtccagc
 361 agctgaccac ggagctggcc aacatgggga acctgtccac ggattcagca gctatggaga
 421 tacagaccac tcaaccagca gccacggagg cacagaccac tccactggca gccacagagg
 481 cacagacaac tcgactgacg gccacggagg cacagaccac tccactggca gccacagagg
 541 cacagaccac tccaccagca gccacggaag cacagaccac tcaaccaca gccctggagg
 601 cacagaccac tgcaccagca gccatggagg cacagaccac tgcaccagca gccatggaag
 661 cacagaccac tccaccagca gccatggagg cacagaccac tcaaccaca gccatggagg
 721 cacagaccac tgcaccagaa gccacggagg cacagaccac tcaaccaca gccacggagg
 781 cacagaccac tccactggca gccatggagg cctgttccac agaaccaggt gccacagagg
 841 cctgttccat ggaacctact accaaaagag gtctgttcat acccttttct gtgtcctctg
 901 ttactcaca gggcattccc atggcagcca gcaatttgtc cgtcaactac ccagtggggg
 961 cccagacca catctctgtg aagcagtgc tgctggccat cctaattctg gcgctggtg
 1021 ccactatctt ctgtgtgtgc actgtgtgct tggcggtccg cctctcccgc aagggccaca
 1081 tgtaccccg gcgtaattac tccccaccg agatgggtctg catctcatcc ctgttgctg
 1141 atgggggtga ggggccctct gccacagcca atgggggctt gtccaaggcc aagagcccg
 1201 gcctgacgac agagcccagg gaggaccgtg agggggatga cctcaccctg cacagcttcc
 1261 tcccttagct cactctgcca tctgttttgg caagacccca cctccacggg ctctcctggg
 1321 ccaccctga gtgccagac cccaatccac agctctgggc ttctctggag acccctgggg
 1381 atggggatct tcagggaagg aactctggcc acccaaacag gacaagagca gcctggggcc
 1441 aagcagacgg gcaagtggag ccacctcttt cctccctccg cggatgaagc ccagccacat
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1861 agagaagatg agctcccca tcccacagc actgcactgc cattgtcttt tggttgccat
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8642 gaggttcag tgagctgaga tcacgctact gcactccagc ctgggtgaca gagtaagact
8702 ccgtctcaaa aaaaaaaaaa aagattcaat gaccctgtt aaagcatggt aaggaagact
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9002 aggattcata ctggaggcag gccagggtgc tcagacatca ccggggggat ggtggcagat
9062 gaggaacgtg atcagatata ggaggtgatc agatatggga ggtgatcaga tatggagtgg
9122 tgggggggag gttgttgcta agctgactta gcagagtctc tgttagaac

(2) INFORMATION FOR SEQ ID NO:2997:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1830 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2997:

1 cctgcctgca cggcacagga gagcaaatct ctacagacag accaaggctt ccatttgctg
61 ctgacacatg gaactgaggt gaaattgtgc tccatgattt tacagatttc ataactgtta
121 agagacggga ctcagggtcat caaaatgaaa gccctcatct ttgcagctgc tggcctcctg
181 cttctgttgc ccactttttg tcagagtggc atggaaaaatg atacaaacaa cttggcaaa
241 ccaaccttac ccattaagac ctttctgtga gctcccccaa attcttttga agagttcccc
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361 gaaagtgtct cacatctcca tgtgaaaaat gctaccatgg ggtacctgac cagctcctta
421 agtactaaac tgatacctgc catctacctc ctgggtgtttg tagttgggtg cccggccaat
481 gctgtgaccc tgtggatgct tttcttcagg accagatcca tctgtaccac tgtattctac
541 accaacctgg ccattgcaga ttttcttttt tgtgttacat tgccctttta gatagcttat
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661 ttctatggca acatgtactg tctcattctg ctccctgccc gcatcagcat caaccgtac
721 ctggccatcg tccatccttt caccatccgg ggcttgccca agcacacctt tgccttggtg
781 acatgtggac tgggtgtggc aacagttttc ttatatatgc tgccattttt catactgaag
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 1321 aagaacaaca taagcatagt gcaaggagct ccatttccga gctcctaaga aatagcttc
 1381 aaaggtcaaa cattacaaaa gcattagtag tttgtttgtt tgtttttgag actgagtctc
 1441 actttatcac ccagactggc gtgcagtggc actatcttgg ctcatgcaa cctctgcctc
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 1621 tcaagtgtatc ttccggcctc agcctcccaa agtgctggat tacaggcgtg agccactgag
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 1741 gagaaaagat atcacaaact tatggaaaaat gacatttcca tttgccttat tgctacttca
 1801 agctctttaa atcacatct tccctatttc

(2) INFORMATION FOR SEQ ID NO:2998:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1534 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2998:

1 tcatgtgggg gcgactgctc ctgtggcccc tgggtgctgg gttcagcctg tctggcgcca
 61 ccagacccc cagcgtctac gacgagagcg ggagcaccgg aggtgggtgat gacagcacgc
 121 cctcaatcct gcctgcccc cgcggtacc caggccaagt ctgtgccaat gacagtgcac
 181 ccctggagct cccggacagc tcacgggcac tgcttctggg ctgggtgccc accaggctgg
 241 tgcccgcctt ctatgggctg gtcctgggtg tggggctgcc ggccaatggg ctggcgctgt
 301 ggggtgctgg cagcgaggca cctcggtgct cctccaccat gctgctgatg aacctgcgca
 361 ctgctgacct cctgctggcc ctggcgctgc ccccgcggtat cgcctaccac ctgctgggcc
 421 agcgtgggcc ctctggggag gccgcctgcc gectggccac ggccgcactc tatggtcaca
 481 tgtatggctc agtgctgctg ctggccgcgg tcagcctgga tcgtacactg gccctgggtg
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 661 tggcgcgctc cgatcgctg ctctgccatg acgcgctgcc cctggacgca caggcctccc
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 1321 gtgggtgctc cataagataa ggagaggcca ggccgtgtgg ctacgcctg taatcccagc
 1381 actttaagag gccaaaggcg atggatcact tgagcccagg agttcaacac cagcctgagc
 1441 aacatggtaa aaccccatct ctaccaaataa tacaaaaatt agctgggctt ggtggctggc
 1501 gcctgtaatc ccagctactc angagactga ggca

(2) INFORMATION FOR SEQ ID NO:2999:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3182 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2999:

1 cgacccggg
 11 ccgcagggc agaataaaaa gcaacaaatg ccaccttaga tccccgggtc tttcttctca
 71 ggaaccccaa tgataaatat gaaccatttt gggaggatga ggagaaaaat gaaagtgggt
 131 taactgaata cagattagtc tccatcaata aaagcagctc tcttcaaaaa caacttctctg
 191 cattcatctc agaagatgcc tccgatatt tgaccagctc ctggctgaca ctctttgtcc
 251 catctgtgta caccggagtg tttgtagtca gcctccact aaacatcatg gccatcggtg
 311 tgttcatcct gaaaatgaag gtcaagaagc cggcggtggt gtacatgctg cacctggcca
 371 cggcagatgt gctgtttgtg tctgtgctcc cctttaagat cagctattac ttttccggca
 431 gtgattgca gtttgggtct gaattgtgtc gcttcgtcac tgcagcattt tactgtaaca
 491 tgtacgcctc tatcttgctc atgacagtca taagcattga ccggtttctg gctgtgggtg

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551 atcccatgca gtccctctcc tggcgctactc tgggaagggc ttccttcact tgtctggcca
611 tctgggcttt ggccatcgca ggggtagtgc ctctcgctcc caaggagcaa accatccagg
671 tgcccggtct caacatcact acctgtcatg atgtgtctcaa tgaaacctg ctcgaaggct
731 actatgccta ctacttctca gccttctctg ctgtcttctt ttttgtgccc ctgatcattt
791 ccacggctctg ttatgtgtct atcattcgat gtcttagctc ttcgcagtt gccaacgca
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911 tgggacccac aaacgtctc ctgattgcgc attactcatt cctttctcac acttccacca
971 cagaggctgc ctactttgcc tacctcctct gtgtctgtgt cagcagcata agctcgtgca
1031 tgcacccctt aatttactat tacgttctct ctgagtgcga gaggtacgtc tacagtatct
1091 tatgctgcaa agaaagtctc gatcccagca gttataacag cagtgggcag ttgatggcaa
1151 gtaaaatgga tacctgtctt agtaacctga ataacagcat atacaaaaag ctgttaactt
1211 aggaaaaggg actgctggga ggttaaaaag aaaagtttat aaaagtgaat aacctgagga
1271 ttctattagt cccacccaa actttattga ttcacctcct aaaacaacag atgtacgact
1331 tgcatacctg ctttttatgg gagctgtcaa gcatgtattt ttgtcaatta ccagaaagat
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1451 aatgtcactt ctggatatag ctagggtgaca tatacatact tacatgtgtg tatagtaga
1511 tctgtgcaca cacatatatt atttgcagtg cagtatagaa taggcacttt aaaacactct
1571 tttcccgcac ccacgcaatt atgaaaataa tctctgattc cctgatttaa tatgcaaatg
1631 ctaggttggt agagtttagc cctgaacatt tcatggtgtt catcaacagt gagagactcc
1691 atagtttggg cttgtaccac ttttgcaaat aagtgtattt tgaaattgtt tgacggcaag
1751 gtttaagtta ttaagaggta agacttagta ctatctgtgc gtagaagttc tagtgtttt
1811 aattttaaac atatccaagt ttgaattcct aaaattatgg aaacagatga aaagcctctg
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2351 ctgagtgtac agagtggaa aagacagaga cctgccctca agagcaaatg agatcatgca
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2531 aggacatata ttttttaaaa taagtctgat ttaattgggc actatttatt tacaatgtt
2591 ttgtctcaata gattgtctca atcagggttt cttttaagaa tcaatcatgt cagtctgctt
2651 agaaataaca gaagaaaata gaattgacat tgaaatctag gaaaattatt ctataatttc
2711 catttactta agacttaatg agactttaaa agcatttttt aacctcctaa gtatcaagta
2771 tagaaaatct tcatggaatt cacaaagtaa tttggaaatt aggttgaaac atatctctta
2831 tcttacgaaa aaatggtagc attttaaaca aaatagaaag ttgcaaggca aatgtttatt
2891 taaaagagca ggcaggcgc ggtggctcac gcctgtaatc ccagcacttt gggaggctga
2951 ggcgggtgga tcacgaggtc aggagatcga gaccatcctg gctaacacg tgaaacctg
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3071 tactcggtgag gctgaggcag gagactggcg tgaaccagc aggcggacct tgtagtgagc
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(2) INFORMATION FOR SEQ ID NO:3000:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6546 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3000:

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121 agagacggga ctcaggtcat caaaatgaaa gccctcatct ttgcagctgc tggcctcctg
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(2) INFORMATION FOR SEQ ID NO:3001:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3001:

1 tcgttcctct cg

(2) INFORMATION FOR SEQ ID NO:3002:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 117608 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3002:

GGCGGCCTGG AAAGCTGAGA TGGAGGGCGG CATGGCGGGC ACAGGCTGGG C TGCTTTTCT TTTCTGGGCC
TCTGTGGTCT GTTTTTTCT GGCCTGCTG GGGCGCTCTC CGCCGCCCGC CTGGCTCCCG GBGCCBTGB
TGGCBTGCC GTGGTTCTTG CCCTCCTTTG GCTGCCGTGC CCGCTCCCCG GCCTCCTGGC GGGTGGCCGT
TGGGCCCGTG TTCCCCTGGG GCCTGGGGCT CCCTTCTCTC GCCCTTCTTG CTGGGCCTCT GCTGCTGCTG
GTGCTGTGGC CCCGTACA CCGAGGAGCC CATGATGGG ATGCCACAGA CGACAGGCGT BCBCCGBGG BCCCBTGBTG
GGCBTGCCBC BGBCBBCBGG C GGC GCC GTG CCG CGT CTT GGT GGC GGC GG GTT CGC GCC CGC GCG
GGG CCC CTC CGG TCC GTT CGC GCC CGC GCG GGG CCC CTC CGG TCC CGG GTC GGG GCC CCC CGC
GGC C GCC TCG GGG CTG GGG CGC TGG TGG CCG GG CCG CGC CTC CGC CCG CTT CTG GCT GGG
CCC CGG GCG CCC CCT CTC TTG CTC GGG TCC CCG TG ACA GCG CGT CCT GTG TCT CCA GCA GCA
TGG CCG GGC CAG CTG GGC CCC BCB GCG CGT CCT GTG TCT CCB GCB GCB TGG CCG GGC CBG CTG
GGC CCC ACA GAG CAG TGC TGT TGT TGG GCA TCT TGC CTT CCC AGG G BCB GBG CB TGC TGT TGT

TGG GCB TCT TGC CTT CCC BGG GCC CTT TTC TGG TGG GGT GGT GCT GTT GTT GGG CTT TCT TCT
GTT CCC BCB GBG CBG TGC TGT TGT TGG GCB TCT TGC CTT CCC BGG GCC CTT TTC TGG TGG GGT
GGT GCT GTT GTT GGG C TTT CTT CTG TTC CC TTT CCC CTG GGT CTT CC CTC CTG CTC TTT TTT C
ATT TGC TCT CTT ATT ACT TTC TGT GTC CAT TTT TTC ATT AAC CGA GCT GT BTT TGC TCT CCT
BTT BCT TTC TGT GTC CBT TTT TTC BTT BBC CGB GCT GT GCC TGT GTC TGT CCT CCT GCT TCG TTC
CTC TCG TTC CTG CTT GGT GCC CTT GCC G GTC CTG CTC CTC CGG GCT GTG G GTC GTG GCC CTG
GCT CCG GCT GGT GGG CTC CCC TGG CCT TCG CTG GCT GGC GGC GTG C GGG TCT TGC TCT GGG
CCT GGC TGT GGC CGT GGT TGG GGG TCT TC GCT GCC TCC GTT TGG GTG GC TCT CTG AAT ATT
GAC CTT CCT CCA TGG CGG TCC TGC TTG GAT TCT CCC GA TCT CTG BBT BTT GBC CTT CCT CCB
TGG CGG TCC TGC TTG GBT TCT CCC GB GCC TTT CCT GGT TCT CTT GTT GTT TTT GGG GTT TGG CTT
ACA GTA GAG TAG GGG ATT CCA TGG CAG GAG CCA TCT TCT TCA TGG ACT CC TTC AAG GAG ACC
TTA GGT TTC TGA GGG ACT GCT AAC ACG CCA TCT GGA GC BCB GTB GBG TBG GGG BTT CCB TGG
CBG GBG CCB TCT TCT TCB TGG BCT CC TTC BBG GBG BCC TTB GGT TTC TGB GGG BCT GCT BBC
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CCCCCAGGTG	CCCTACTGGT	TGTGGGCCCTC	TGTCAGCCCC	CGCATCAACC	TGACATGGCA	TGGCTTCTGC
TCTGCTAGGA	CGGTCCCAGG	AGAAGAAGAG	ACACGGATGT	GGGCCCAGGA	CGGTGCTCTG	ACAAAATGTC
CAGCCTTGCA	GGAGGACTCT	GGCACCTACG	TCTGCACTAC	TAGAAATGCT	TCTTACTGTG	AATTTTAACC
CATTGAGCTC	AGAGTTTTTG	AGAATACAGA	TGCTTTCCTG	CCGTTTCTCT	CATACCCGCA	GACGTGAAGA
TTGTCAACCT	CTGGGGTATT	AGTATGCCCT	GACCTTGAGTG	AATTACCCCG	TGACAAAAC	GGGGGACCAC
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GAAGGCCAGC	AATACAACAT	CACTAGGAGT	ATTGAGCTAC	GCATCAAGAA	AAAAAAGAA	CGTGTAAGGT
CTGTGATCAT	TTCCCCCTC	AAGACCATAT	CAGCTTCTCT	GGGGTCAAGA	CTGACAATCC	CATAGAGAGC
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CTGGCCCCAC	TTTCACTGGC	CTTCTTGGTT	TTGGGGGAA	TATGGATGCA	CAGACGGTGC	CCAAGTGAAA
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GGAGCGGCAG	GAATGTGACA	ATCGCGCGCC	CGCACCGTAG	CACTCCTCGC	TCCGCTCCTA	GCTTCTCTCA
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CGCACCCCTCT	GAAGATGGTG	ACTCCCTCCT	GAGAAGCTGG	ACCCCTTGGT	AAAAGACAAG	TCGTCCCTGT
AGAAGAATAT	GAAAGTGTTA	CTCAGACTTA	TTTGTTCAT	AGCTCTACTG	ATTTCTTCTC	CCTGTAATCTA
TAAATGCAAG	GAACGTGAAG	AAAAAATAAT	TTTAGTGTCA	TCTGCAATG	AAATGATGT	TGGAGGATTC
CCTCTTAACC	CAAAATGAACA	CAAAGGCACT	ATAACTTGGT	ATAAAGATGA	CAGCAAGACA	AAAATTTGTG
CAGAACAAGC	CTCCAGGATT	CATCAACACA	AAGAGAACT	TTGGTTTGT	CCTGCTAAGG	GCAGGAGACG
AGGACATTAC	TATTGCGTGG	TAAGAAATTC	ATCTTACTGC	CTCAGAATTA	AAATAAGTGC	
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 TATCATCTT TATCCCTGAG GTCACCAGGA ATCAGG

(2) INFORMATION FOR SEQ ID NO:3003:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35459 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3003:

CTT GCT CCT GGG GGC CTC CTG GTC CCT CTG GCT G TT CCC GGC CCT GGB CTG GGG CBG GGG CCG
 CGT BGG CGC GGC TCG CCB GGB CGG GCB GCG CCB GCB GCB GCB GGC TCB GCB TCC TGG CCB CGG
 BBT TCC GGT GTG CGG GGC CTG GTG CC CCT GGG CCT CGG GTG CTG CCT GT GCG CTG CCT TCT TCT
 CCT GG GTC CTC GCC GGG GCC CTT GCT GCC CTG GCT GT GCC CTG GGG GTC TGG GTT CGG CTG T
 CCC CBG CBG GBC CBG TCC CBT CCB CBG CGT GTG BTG BGT BGC CBT TCT CCT GCB GCC GBG GGG
 CGC GGG GGB GCB TCG C TTT GGG CTT TTC TCC TTT GGT T TGB GCG CCB GGB CCG GCG BCB GCB
 GCB GGG CGC GGG GCB GCB TCG CBG CGG CGG GCB GGG GGGCTCCGCG CGCGGBGGT TBTGGGCTCC
 CBGBGCCBCC CGCBCCGCGC GGBCGTTTBC BTTCGCCBCG CBGTGCGCGG CCBGCBTGBG GBBGTTGGGC
 GCBBTCBGGG TGGCGCCGCB GBBGTGGCCT CCGCGCBGCT GCBGGGBCB CBTGBBGGGC CBCGCGTGGG
 GCCGCGCTCG CCGGCCCCCC BCBTCTCCG BGGCCBGGCG GGTGCCCCC BCBGCBGGG CCGGCBGGBC
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 GCC TGG GCC TGC BGG GCC GCT CTT GCC TGG BGT GGC TC GCC CBG BGT CTT CCC TGG T
 CGCTGCBBTC TGCTCCGGGG CTGCBGCBBC CTCBTCBGCTC TTGCTGGBGTG GTCBGCCTGG GCCTGCBGGG
 CCBCCBGGBG BTGGCBGCBG GBTGGCBGGG TCCTCBTGGC TGGGGTCCCT GGBGGGGGB GGBCBGGGG
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 CCC GCC CGC CCG CCG GCC GCC GC CCC GCC GGG CTG TCC CCG CCC CGC CCC GGC CCG GGG CGC GGG
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GC CGGCGGG	CTGGTCCCTGG	CGTTTGTCTC	CTTCTCTGG	CTGCCCCBGT	TTTTGBTCCT	CBCBTGCCGT
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TCTGTGGGCG	TGTGCTGGGT	CTTGGGGCTT	CCTCCCTTGT	GCTGGGTGCG	GCCTCCCCGC	CCCCCTTCTG
GGCCGCTGGC	CTGGCTCCTT	GTGGGCGCTT	CTGGCTCTTG	CCCTGTCCTT	CTTCGCCTCG	TGGTGCTGG
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CATCATGAAG	GAGCTGCTGG	CCTGCTCGCA	TCCCTTCTCG	AAGAGTGCCA	CTGAGCATGT	CCAAGGCCAC
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CGGCCATCAC	CGTGTTCCCC	CAGCGGAGTG	ATGGCAAGCA	CGACTTCCGG	GTGTGGAATG	AACATCAGGT
CCGCTATGCT	GGCTACCAGA	TGCCAGATGG	CAGCATCAGA	GGGGACCCTG	CCAACGTGGA	CTCAGCTCAT
CTGTGCATCG	ACCTGGGCTG	GAAGCCCCAG	TACGGCCGCT	TCGATGTGGT	CCCCCTGGTC	ATTCACTCAG
ATGGCCGTGA	CCCTGAGCTC	TTCGAAATCC	CACCTGACCT	TGTGCTTGAG	GTGGCCATGG	CTGCAGGCCA
ATACGAGTGG	TTTCGGGAAC	TGGAGCTAAA	GTGGTACGCC	CTGCCTGCAG	TGGCCAAATC	AACATCCCAA
GTGGGCGGCC	TGGAGTTCCC	AGGGTGCCCC	TTCAATGGCT	GGTACATGGG	CACAGAGATC	GCTGCTTGAG
ACTTCTGTGA	CGTCCAGCGC	TACAACATCC	TGGAGGAAGT	GGGCAGGAGA	ATGGGCCTGG	GGAGTCCGGG
						AAACGCACAA

GCTGGCCTCG	CTCTGGAAG	ACCAGGCTGT	CGTTGAGATC	AACATGCTG	TGATCCATAG	TTTTCAGAAG
CAGAATGTGA	CCATCATGGA	CCACCACTCG	GCTGCAGAA	CCTTCATGAA	GTACATGCAG	AATGAATACC
GGTCCCCTGG	GGGCTGCCCC	GCAGACTGGA	TTTGGCTGGT	CCCTCCCATG	TCTGGGAGCA	TCACCCCCGT
GTTTCACCA	GAGATGCTGA	ACTACGTCCT	GTCCCCCTTC	TACTACTATC	AGGTAGAGGC	CTGGAAAAAC
CATGCTCTGG	AGGACGAGAA	GCGGAGACCC	AAGAGAAGAG	AGATTCCATT	GAAAGTCTTG	GTCAAAGCTG
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AGAGACAGGA	AAATCAGAGG	CGCTGGCCTG	GGACCTGGGG	GCCTTATTCA	GCTGTGCCTT	CAACCCCAAG
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CGTTTGGCAA	TGGAGACTGC	CCTGGCAATG	GAGAGAACT	GAAGAAATCG	CTCTTCATGC	TGAAAGAGCT
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CATGACATTG	ATCAGAAGCT	GTCCACCTG	GGGGCCTCTC	AGCTCACCCC	GATGGGAGAA	GGGGATGAGC
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GGAACTCTCC	TGTGAGGATG	GCCAAGGCCT	GAACTACCTG	CCGGGGGAGC	ACCTTGGGGT	TTGCCCAGGC
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CCTGCTTTCC	CAGTCCCCA	TTCTGAAGCC	CAGGTTCTAC	TCCATCAGCT	CCTCCCGGGA	TCACACGCCC
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CGCCTTCCAC	CTCCCCGAGG	ATCCCTCCCA	TCCTTGATC	CTCATCGGGC	CTGGCACAGG	CATCGTGCCC
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GAATGAGGAG	CAGGTCGAGG	ACTATTTCTT	TCAGCTCAAG	AGCCAGAAGC	GCTATCACGA	AGATATCTTC
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TCTCAAATG	GGGCCCTCCT	GGTCCCTTGG	AGACAAAATC	TTAAATGCCA	GGCCTGGCGA	GTGGGTGAAA
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(2) INFORMATION FOR SEQ ID NO:3004:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 209279 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3004:

CCT CCT TCC TGG TCT GTC TGC CBG BCB BBT TTG GGB BGT GBB CBG TTT TGG BBC CBT GTT TCC
CBG TCT CTG BGC TGT GGC GCC CTG CTG CTC TTT CTG CT TCC CTT GGT GGG TTG GGC C GCT GGT
TGT TCT GGG GTT C TTG CTG CCC CTT CTG TCC C TGT TTG CTG GTG TCT GCG C CCC CBB CBG BBG
BBG CBG BCB BBT TTG GGB BGT GBB CBG TTT TGG BBC CBT GTT TCC TGT GCG CTC GGC CTG GTC
CCG G GGG TCT CCT CTT GTT GTT GC TTG CGC CTC CTG CTG GGG GT CC CTC TGT TCT TGT TTT

GGG GGC GGG CCC GGC CGT TGT CTT G GTT TGG GGG TTT CCG TTG GGG TTC TCC TGG CCC GGG
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GCT GTC TTT GGT G GCB CCG TCC BGT GBT GGT GCG GTB CTT GTC GCT GCB GCG CTC GGC CTG GTC
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CTG CTG G GTT CTT GGC TTC TTC TGT CCG T TGG CTT CTC GTT GTC CC TGT GGG CTT CTC GTT
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TCB TCT TGG CTT TBT CCTCT CCC CTT GTT CCT CCC CTCT CCT GCT CTG GRG TCT CCT C TTC CCT
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GCAGGAACAT	ATATTATTTA	TTTAAGCAAT	TACTTTTCAT	GTTGGGGTGG	GGACGGAGGG	GAAAGGGAAG
CCTGGGTTTT	TGTACAAAA	TGTGAGAAAC	CTTTGTGAGA	CAGAGAACAG	GGAATTAAAT	GTGTCATACA
CAGCTGCGGC	ATCCTCTGTC	TCAGAGTCTT	GGTGTCTCTG	TTCCTTTCCC	CTCGGGTCT	CCCTGGGTCT
CCCCAAGTCC	CTCCTGCTGT	CTTCTCTCCG	CTCTCTGATC	TCTGACTCCC	AGAACCTCTC	CCTCTGTCTC
CAGGGCTGCC	CCTCTGATCC	TCTTTGCTTC	TCTGGTGTGT	CTCTCTGGCT	GCCTCCATCT	CTGTGGATCT
CCGTCTCCCT	GTCTCTGTCT	CAGTCTGTCC	TTCACCTGT	GTGTGTGTGT	GTCTCTCTCT	CTCTCTCTCC
TTCCCTTCCA	CTCCCTCTTC	CTCCTGCCTC	CACCTCTCCA	GGCCCTGTG	TTGTCCCTCC	GTCCGGCCTT
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AGTCGGGCCC	CAGCGCTTGA	GCCTGAGTGT	CTGCTCCGGC	CCGTGGAGGT	GGAGGGAGGG	GACGCCAATG
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GGGTGAGTCA	GGATGTGTCA	GGCCGGCCCT	CCCCTGCCGC	CTGCCCCCG	CCCGCCGCG	CCAGGCCCCC
TATATAACCC	CCCAGGCGTC	CACACTCCCT	CACTGCCGCG	GGCCTGTCTG	CTCAGGGCAC	ATGCCTCCCC
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GGCTCCCTGC	CCCCTGCCCT	GGGGAACCCC	TGGCCCTGTG	GGGACATGAA	CTGTAAGTTG	GTTTCATGGG
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GCCAGACAGG	GCCCCGAGAG	AGCGAGACGC	GAGACCGAGC	AGGGGCAGGG	ACGCAGGGAC	TGGTGCCGGG
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CAGAGAGGCT	CCGGAGGGAA	ACTGAGGCAG	GGTCCGCGGA	GAGCGGAGCA	AGCCAGGGAG	TAGCGACCCC
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CACCATCCGC	GCCCCGGGGC	CCAGATTCCG	GCGTCCGGGG	GCGGACGGGA	GACGCCCGGG	CCGCGTCTGC
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GC GTTCCACC	CTGGGACTTA	AGACCTCCAG	CTCCATCCTC	CCTAAGGCCG	GGAGTCCAGG	CCCCAGACCC
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CGCGGCAGCT	GGCTGCACAG	CTGGTAGGAG	AGACTGGGCT	GGGGCCAGCA	CAGGAGTGAG	AGGCAGAGAG
GAACGGAGAG	GAGTCTGCGG	GCAGCCACTT	GGAGGGGTTC	TGGGCTCTCA	GGTGGCAGAG	TGAGGGAGGG
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TTTCCCTGCC	AGAGGGACAA	ATTCCAGCT	GACGGGGACC	ACAACCTGGA	TTCCCTGCCC	ACCCTGGCCA
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TCCACAGACT	TCACCCCCAA	CCCCCACACT	CAGCTCTGGA	AGCCCGTCCT	GA CTCCAGCC	TCCATTTTCT
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ATCCCCCGCG	CATTATCTCC	CCCTAGTTAG	AGACAGTCTT	TCCGTGAGGC	CTGGGGGGCA	TCTGTGCCTT
ATTTATACTT	ATTTATTTCA	GGAGCAGGGG	TGGGAGGCAG	GTGGACTCCT	GGGTCCCCGA	GGAGGAGGGG
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GTCAATACATA	TCCACTTGAG	GGCGATTTGT	CTGAGAGCTG	GGGCTGGATG	CTTGGGTAAC	TGGGGCAGGG
CAGGTGGAGG	GGAGACCTCC	ATTGAGGTGG	AGGTCCCGAG	TGGGCGGGGC	AGCGACTGGG	AGATGGGTCT
GTCAACCCAGA	CAGCTCTGTG	GAGGCAGGGT	CTGAGCCTTG	CCTGGGGCCC	CGCACTGCAT	AGGGCCGTTT

GT TTG TTT TTT	TGAGATGGAG	TCTCGCTCTG	TTGCCTAGGC	TGGAGTGCAG	TGAGGCAATC	TAAGGTCACT
GCAACCTCCA	CCTCCCGGGT	TCAAGCAATT	CTCCTGCCTC	AGCCTCCCGA	TTAGCTGGGA	TCACAGGTGT
GCACCACCAT	GCCCAGCTAA	TTATTTATTT	CTTTTGTATT	TTTAGTAGAG	ACAGGGTTTC	ACCATGTTGG
CCAGGCTGGT	TTGAACTCC	TGACCTCAGG	TGATCCTCCT	GCCTCGGCCT	CCCAAAGTGC	TGGGATTACA
GGTGTGAGCC	ACCACACCTG	ACCCATAGGT	CTTCAATAAA	TATTTAATGG	AAGGTTCCAC	AAGTCACCCT
GTGATCAACA	GTACCCGTAT	GGGACAAAGC	TGCAAGGTCA	AGATGGTTCA	TTATGGCTGT	TTTACACATA
GCAAAC TGGA	AACAATCTAG	ATATCCAACA	GTGAGGGTTA	AGCAACATGG	TGCATCTGTG	GATAGAACGC
CACCCAGCCG	CCCGGAGCAG	GGACTGTCAT	TCAGGGAGGC	TAAGGAGAGA	GGCTTGCTTG	GGATATAGAA
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TC TT TCTATA	TATGGATTAA	AACAAAAATC	CTAAAGGGAA	ATACGCCAAA	ATGTTGACAA	TGACTGTCTC
CAGGTCAAAG	GAGAGAGGTG	GGATTGTGGG	TGACTTTTAA	TGTGTATGAT	TGTCTGTATT	TTACAGAATT
TCTGCCATGA	CTGTGTATTT	TGCATGACAC	ATTTTAAAAA	TAATAAACAC	TATTTT TAGA	ATAACAGAAT
ATCAGCCTCC	TCCTCTCCAA	AAATAAGCCC	TCAGGAGGGG	ACAAAGTTGA	CCGCTGATTG	AGCCTGTCAG
GGCTGTGCAC						

2) INFORMATION FOR SEQ ID NO:3005:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11786 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3005:

ATGCCGCCCT	CCATCTCAGC	TTTCCAGGCC	GCCTACATCG	GCATCGAGGT	GCTCATCGCC	CTGGTCTCTG
TGCCCGGGAA	CGTGCTGGTG	ATCTGGGCGG	TGAAGGTGAA	CCAGGCGCTG	CGGGATGCCA	CCTTCTGCTT
CATCGTCTCG	CTGGCGGTGG	CTGATGTGGC	CGTGGGTGCC	CTGGTCATCC	CCCTCGCCAT	CCTCATCAAC
ATTGGGCCAC	AGACCTACTT	CCACACCTGC	CTCATGGTTG	CCTGTCCGGT	CCTCATCCTC	ACCCAGAGCT
CCATCTGGC	CCTGCTGGCA	ATTGCTGTGG	ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC	GGTACAAGAT
GGTGGTGACC	CCCCGGAGGG	CGGCGGTGGC	CATAGCCGGC	TGCTGGATCC	TCTCCTTCGT	GGTGGGACTG
CCCCCTATGT						
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CAAGTGCAG	TTGAGAAAG	TCATCAGCAT	GGAGTACATG	GTCTACTTCA	ACTTCTTTGT	GTGGGTGCTG
CCCCCGCTTC	TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT	TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA
AGGTGTCGGC	CTCCTCGGC	GACCCGCAGA	AGTACTATGG	GAAGGAGCTG	AAGATCGCCA	AGTCGCTGGC
CCTCATCCTC	TTCTCTTTG	CCCTCAGCTG	GCTGCCTTTG	CACATCCTCA	ACTGCATCAC	CCTCTCTGTC
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CGGGAGCCGG	AGGACTATGA	GCTGCCGCGC	GTTGTCCAGA	GCCCAGCCCA	GCCCTACGCG	CGCGGCCCGG
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GCCCCAGCTG	GGCTGTTGGC	TGGGGGCATG	GGGGAGGCTC	TGAAGAGATA	CCCACAGAGT	GTGGTCCCTC
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GACCAGGTGT	CTAGAGGCAA	CAGTGTCTTG	AGCCCCCACC	TGCCCTGACCA	TCCCATGAGC	AGTCCAGCGC
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GGCTTCTGCG	GTGAGGCAGG	GGAGTCTGCT	TGCTCTTAGAT	GTTGGTGGTG	CAGCCCCAGG	ACCAAGCTTA
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CGTTGCCGGG	CCTGGACTGT	CCTAGGTGAC	CCCATCTCTG	CTGCTTCTGG	GCCTGATGGA	GAGGAGAACA
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GCCGGCCTTG	GCTTCCCCAG	GAATCCCTGG	AGCTAGCGGC	TGCTGAAGGC	GTCGAGGTGT	GGGGGCACTT
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CCTTACCTAC	ATTGCCATCT	TCCTCACGCA	CGGCAACTCG	GCCATGAACC	CCATTGTCTA	TGCCTTCCGC
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GGTCTTGGGG	AGGCTGAGAC	TGCAGAGGAG	CCACCTGGGC	TGGGAGAAGG	TGCTTGGGCT	TCTGCGGTGA
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GGA GGG CGG CAT GGC GGG	G CGG GTC GCC GG	GGC GGG CBC BGG	C GGC GGG CBC	GC GGC		
CTG G GGB GGG CGG C GBT	GGB GGG GG CTG GGC	GC GGC CTG GAA	AGC TGA	GAT GGA	GGG CGG CAT	
GGC GGG CAC AGG CTG	GGC ATGCCGCCCT	CCATCTCAGC	TTTCCAGGCC	GCCTACATCG	GCATCGAGGT	

GCTCATCGCC	CTGGTCTCTG	TGCCCCGGAA	CGTGCTGGTG	ATCTGGGCGG	TGAAGGTGAA	CCAGGCGCTG
CGGGATGCCA	CCTTCTGCTT	CATCGTCTCG	CTGGCGGTGG	CTGATGTGGC	CGTGGGTGCC	CTGGTCAATCC
CCCTCGCCAT	CCTCATCAAC	ATTGGGCCAC	AGACCTACTT	CCACACCTGC	CTCATGGTTG	CCTGTCCGGT
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ATCCCTCTCC	GGTACAAGAT	GGTGGTGACC	CCCCGAGGG	CGGCGGTGGC	CATAGCCGGC	TGCTGGATCC
TCTCCTTCGT	GGTGGGACTG	ACCCCTATGT	TTGGCTGGAA	CAATCTGAGT	GCGGTGGAGC	GGGCCTGGGC
AGCCAACGGC	AGCATGGGGG	AGCCCGTGAT	CAAGTGCAGG	TTCGAGAAGG	TCATCAGCAT	GGAGTACATG
GTCTACTTCA	ACTTCTTTGT	GTGGGTGCTG	CCCCCGCTTC	TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT
TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA	AGGTGTCGGC	CTCCTCCGGC	GACCCGAGCA	AGTACTATGG
GAAGGAGCTG	AAGATCGCCA	AGTCGCTGGC	CCTCATCTCT	TCCTCTTTG	CCCTCAGCTG	GCTGCCTTTG
CACATCCTCA	ACTGCATCAC	CCTCTTCTGC	CCGTCTGCCC	ACAAGCCAG	CATCCTTACC	TACATTGCCA
TCTTCTCTAC	GCACGGCAAC	TCGGCCATGA	ACCCATTGT	CTATGCCTTC	CGCATCCAGA	AGTTCGCGCT
CACCTTCTCT	AAGATTGGGA	ATGACCATT	CCGTGCGCAG	CCTGCACCTC	CCATTGACGA	GGATCTCCCA
GAAGAGAGGC	CTGATGACTA	G ATGAGTGTCA	GAAGTGTGAA	GGGTGCCTGT	TCTGAATCCC	AGAGCCTCCT
CTCCCTCTGT	GAGGCTGGCA	GGTGAGGAAG	GGTTTAACCT	CACTGGAAGG	AATCCCTGGA	GCTAGCGGCT
GCTGAAGGCG	TCGAGGTGTG	GGGGCACTTG	GACAGAACAG	TCAGGCAGCC	GGGAGCTCTG	CCAGCTTTGG
TGACCTTGGG	CCGGGCTGGG	AGCGCTGCGG	CGGGAGCCGG	AGGACTATGA	GCTGCCGCGC	GTTGTCCAGA
GCCCAGCCCA	GCCCTACGCG	CGCGGCCCGG	AGCTCTGTTC	CCTGGAACCT	TGGGCACTGC	CTCTGGGACC
CCTGCCGGCC	AGCAGGCAGG	ATGGTGCTTG	CCTCGTGCCC	CTTGGTGCCC	GTCTGCTGAT	GTGCCAGCC
TGTGCCCGCC	ATGCCGCCCT	CCATCTCAGC	TTTCCAGGCC	GCCTACATCG	GCATCGAGGT	GCTCATCGCC
CTGGTCTCTG	TGCCCGGGAA	CGTGCTGGTG	ATCTGGGCGG	TGAAGGTGAA	CCAGGCGCTG	CGGGATGCCA
CCTTCTGCTT	CATCGTGTCG	CTGGCGGTGG	CTGATGTGGC	CGTGGGTGCC	CTGGTCAATC	CCCTCGCCAT
CCTCATCAAC	ATTGGGCCAC	AGACCTACTT	CCACACCTGC	CTCATGGTTG	CCTGTCCGGT	CCTCATCTCT
ACCCAGAGCT	CCATCCTGGC	CCTGCTGGCA	ATTGCTGTGG	ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC
GGTACAAGAT	GGTGGTGACC	CCCCGAGGG	CGGCGGTGGC	CATAGCCGGC	TGCTGGATCC	TCTCCTTCGT
GGTGGGACTG	ACCCCTATGT	TTGGCTGGAA	CAATCTGAGT	GCGGTGGAGC	GGGCTGGGGC	AGCCAACGGC
AGCATGGGGG	AGCCCGTGAT	CAAGTGCAGG	TTCGAGAAGG	TCATCAGCAT	GGAGTACATG	GTCTACTTCA
ACTTCTTTGT	GTGGGTGCTG	CCCCCGCTTC	TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT	TCTACCTAAT
CCGCAAGCAG	CTCAACAAGA	AGGTGTCGGC	CTCCTCCGGC	GACCCGAGCA	AGTACTATGG	GAAGGAGCTG
AAGATCGCCA	AGTCGCTGGC	CCTCATCTCT	TTCTCTTTTG	CCCTCAGCTG	GCTGCCTTTG	CACATCTCA
ACTGCATCAC	CCTCTTCTGC	CCGTCTGCCC	ACAAGCCAG	CATCCTTACC	TACATTGCCA	TCTTCTCTAC
GCACGGCAAC	TCGGCCATGA	ACCCATTGT	CTATGCCTTC	CGCATCCAGA	AGTTCGCGCT	CACCTTCTCT
AAGATTTGGA	ATGACCATT	CCGTGCGCAG	CCTGCACCTC	CCATTGACGA	GGATCTCCCA	GAAGAGAGGC
CTGATGACTA	GACCCCGCTT	TCCGCTCCCA	CCAGCCCA	TCCAGTGGGG	TCTCAGTCCA	GTCTCACAT
GCCCCTGTGC	CCAGGGGTCT	CCCTGAGCCT	GCCCCAGCTG	GGCTGTTGGC	TGGGGGCATG	GGGGAGGCTC
TGAAGAGATA	CCCACAGAGT	GTGGTCCCTC	CACTAGGAGT	TAACCTACCT	ACACCTCTGG	GCCCTGCAGG
AGGCCTGGGA	GGGCAAGGCT	CCTACGGAGG	GACCAGGTGT	CTAGAGGCAA	CAGTGTCTCT	AGCCCCCACC
TGCTGACCA	TCCCATGAGC	AGTCCAGCGC	TTGAGGGCTG	GGCAGGTCTT	GGGGAGGCTG	AGACTGCAGA
GGAGCCACCT	GGGCTGGGAG	AAGGTGCTTG	GGCTTCTGCG	GTGAGGCAGG	GGAGTCTGCT	TGTCTTAGAT
GTGGGTGGTG	CAGCCCCAGG	ACCAAGCTTA	AGGAGAGGAG	AGCATCTGCT	CTGAGACGGA	TGGAAGGAGA
GAGGTGAGG	ATGCACTGGC	CTGTTCTGTA	GGAGAGACTG	GCCAGAGGCA	GCTAAGGGGC	AGGAATCAAG
GAGCCTCCGT	TCCCACCTCT	GAGGACTCTG	GACCCAGGC	CATACCAGGT	GCTAGGGTGC	CTGCTCTCCT
TGCCCTGGGC	CAGCCCAGGA	TTGTACGTGG	GAGAGGCAGA	AAGGGTAGGT	TCAGTAATCA	TTTCTGATGA
TTTGCTGGAG	TGCTGGCTCC	ACGCCCTGGG	GAGTGAGCTT	GGTGCGGTAG	GTGCTGGCCT	CAAACAGCCA
CGAGGTGGTA	GCTCTGAGCC	CTCCTTCTTG	CCCTGAGCTT	TCCGGGGAGG	AGCCTGGAGT	GTAATTACCT
GTCTCTGGG	CCACCAGCTC	CACTGGCCCC	CGTTGCCGGG	CCTGGACTGT	CCTAGGTGAC	CCCATCTCTG
CTGCTTCTGG	GCCTGATGGA	GAGGAGAACA	CTAGACATGC	CAACTCGGGA	GCATTCTGCC	TGCCTGGGAA
CGGGGTGGAC	GAGGGAGTGT	CTGTAAGGAC	TCAGTGTGTA	CTGTAGGCGC	CCCTGGGGTG	GGTTTAGCAG
GCTGCAGCAG	GCAGAGGAGG	AGTACCCCC	TGAGAGCATG	TGGGGGAAGG	CCTTGCTGTC	ATGTGAATCC
CTCAATACCC	CTAGTATCTG	GCTGGGTTTT	CAGGGGCTTT	GGAAGCTCTG	TTGCAGGTGT	CCGGGGGTCT
AGGACTTTAG	GGATCTGGGA	TCTGGGGAAG	GACCAACCCA	TGCCCTGCCA	AGCCTGGAGC	CCCTGTGTTG
GGGGGCAAGG	TGGGGGAGCC	TGGAGCCCC	GTGTGGGAGG	GCGAGGCGGG	GGAGCCTGGA	GGCCCTGTGT
GGGAGGGCGA	GGCGGGGGAT	CCTGGAGCCC	CTGTGTCGGG	GGGCGAGGGA	GGGAGGTGG	CCGTGCGTTG
ACCTTCTGAA	CATGAGTGTC	AACTCCAGGA	CTTGCTTCCA	AGCCCTTCCC	TCTGTTGGAA	ATTGGGTGTG
CCCTGGCTCC	CAAGGGAGGC	CCATGTGACT	AATAAAAAAC	TGTGAACCTT	CGCATTGTGT	TTTAAATAAA

AGAATCTGGA	AGATAAATAG	TCTTGAAGAG	AGACAAAGGA	AGGAAAATT	AAATCCTTAG	ATTCAAGCAG
AAGAATCCA	TGTGGAAGGT	TGGGTGTGT	GTTGTGTGTG	TTGGTGTGT	TTTTTGT	TTTGT
TGTTTTTTT	TGAGATGGAG	TCTCGCTGTG	TTACCGGGAG	CGACAGAGCC	GCACGGCCGA	GTCTAGTCCC
AGCCAGCTAC	CATCCCTCTG	GAGCTTACCG	GCCGGCCTTG	GCTTCCCAG	GAATCCCTGG	AGCTAGCGGC
TGCTGAAGGC	GTCGAGGTGT	GGGGGCACTT	GGACAGAACA	GTCAGGCAGC	CGGGAGCTCT	GCCAGCTTTG
GTGACCTTGG	GTGCTTGCCT	CGTGCCCTT	GGTGCCCGTC	TGCTGATGTG	CCCAGCCTGT	GCCCGCCATG
CCGCCCTCCA	TCTCAGCTTT	CCAGGCCGCC	TACATCGGCA	TCGAGGTGCT	CATCGCCCTG	GTCTCTGTGC
CCGGGAACGT	GCTGGTGATC	TGGGCGGTGA	AGGTGAACCA	GGCGCTGCGG	GATGCCACCT	TCTGCTTCAT
CGTGTGCTG	GCGGTGGCTG	ATGTGGCCGT	GGGTGCCCTG	GTCATCCCC	TCGCCATCCT	CATCAACATT
GGGCCACAGA	CCTACTTCCA	CACCTGCCTC	ATGGTTGCCT	GTCCGGTCCT	CATCCTCACC	CAGAGCTCCA
TCCTGGCCCT	GCTGGCAATT	GCTGTGGACC	GCTACCTCCG	GGTCAAGATC	CCTCTCCGGT	ACAAGATGGT
GGTGACCCCC	CGGAGGGCGG	CGGTGGCCAT	AGCCGGCTGC	TGGATCCTCT	CCTTCGTGGT	GGGACTGACC
CCTATGTTTG	GCTGGAACAA	TCTGAGTGCG	GTGGAGCGGG	CCTGGGCAGC	CAACGGCAGC	ATGGGGGAGC
CCGTGATCAA	GTGCGAGTTC	GAGAAGGTCA	TCAGCATGGA	GTACATGGTC	TACTTCAACT	TCTTTGTGTG
GGTGCTGCC	CCGCTTCTCC	TCATGGTCTT	CATCTACCTG	GAGGTCTTCT	ACCTAATCCG	CAAGCAGCTC
AACAAGAAGG	TGTCGGCCTC	CTCCGGCGAC	CCGCAGAAAGT	ACTATGGGAA	GGAGCTGAAG	ATCGCCAAGT
CGCTGGCCCT	CATCCTCTTC	CTCTTTGCC	TCAGCTGGCT	GCCTTTGCAC	ATCCTCAACT	GCATCACCTT
CTTCTGCCCG	TCCTGCCACA	AGCCCAGCAT	CCTTACCTAC	ATTGCCATCT	TCCTCACGCA	CGGCAACTCG
GCCATGAACC	CCATTGTCTA	TGCCTTCCGC	ATCCAGAAGT	TCCGCGTCAC	CTTCTTAAG	ATTTGGAATG
ACCATTTCCTG	CTGCCAGCCT	GCACCTCCCA	TTGACGAGGA	TCTCCAGAA	GAGAGGCCTG	ATGACTAGAC
CCCGCCTTCC	GCTCCACCG	CCCACATCCA	GTGGGGTCTC	AGTCCAGTCC	TCACATGCC	GCCTGCCAG
GGGTCTCCCT	GAGCCTGCC	CAGCTGGGCT	GTTGGCTGGG	GGCATGGGG	AGGCTCTGAA	GAGATACCCA
CAGAGTGTGG	TCCTCCACT	AGGAGTTAAC	TACCCTACAC	CTCTGGGCCC	TGCAGGAGGC	CTGGGAGGGC
AAGGTCTCTA	CGGAGGGACC	AGGTGTCTAG	AGGCAACAGT	GTTCTGAGCC	CCCACCTGCC	TGACCATCCC
ATGAGCAGTC	CAGAGCTTCA	GGGCTGGGCA	GGTCTGGGG	AGGCTGAGAC	TGCAGAGGAG	CCACCTGGGC
TGGGAGAAGG	TGCTTGGGCT	TCTGCGGTGA	GGCAGGGGAG	TCTGCTTGTC	TTAGATGTTG	GTGGTGACGC
CCCAGGACCA	AGCTTAAGGA	GAGGAGAGCA	TCTGCTCTGA	GACGGATGGA	AGGAGAGAGG	TTGAGGATGC
ACTGGCCTGT	TCTGTAGGAG	AGACTGGCCA	GA			

(2) INFORMATION FOR SEQ ID NO:3006:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7144 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3006:

GGC GCC GTG CCG CGT CTT GGT GGC GGC GG GTT CGC GCC CGC GCG GGG CCC CTC CGG TCC GTT
CGC GCC CGC GCG GGG CCC CTC CGG TCC CGG GTC GGG GCC CCC CGC GGC C GCC TCG GGG CTG GGG
CGC TGG TGG CCG GG CCG CGC CTC CGC CTG CCG CTT CTG GCT GGG CCC CGG GCG CCC CCT CCC CTC
TTG CTC GGG TCC CCG TG ACA GCG CGT CCT GTG TCT CCA GCA GCA TGG CCG GGC CAG CTG GGC CCC
BCB GCG CGT CCT GTG TCT CCB GCB GCB TGG CCG GGC CBG CTG GGC CCC CCCAGCCCCG
AGGCTCAGAA GCGGCAGGCG GAGGCGCGGT CCGGGCGCTA TGGCCATGCC CGGCGGGTCT CACGCGGCTG
CCCCTCGCCC GCGCGCCTT CGGTAGGGGG CGCCCGGGGC CCAGCTGGCC CGGCCATGCT GCTGGAGACA
CAGGACGCGC GTACGTGGC GCTGGAGCTG GTCATCGCCG CGCTTTCGGT GCGGGCAAC GTGCTGGTGT
GCGCCGCGGT GGGCACGGCG AACACTCTGC AGACGCCAC CAACTACTTC CTGGTGTCCC TGCTGCGGC
CGACGTGGCC GTGGGGCTCT TCGCCATCCC CTTTGCCATC ACCATCAGCC TGGGCTTCTG CACTGACTTC
TACGGCTGCC TCTTCTCGC CTGCTTCGTG CTGGTGCTCA CGCAGAGTTC CATCTTCAGC CTTCTGGCCG
TGGCAGTCGA CAGATACCTG GCCATCTGTG TCCCGCTCAG GTATAAAAGT TTGGTACCGG GGACCCGAGC
AAGAGGGGTC ATTGCTGTCC TCTGGGTCCCT TGCTTTGGC ATCGGATGTA CTCCATTCCT GGGGTGGAAC
AGTAAAGACA GTGCCACCAA CAACTGCACA GAACCTGGG ATGGAACCAC GAATGAAAGC TGCTGCCTTG
TGAAGTGTCT CTTTGAAGAT GTGGTCCCCA TGAGCTACAT GGTATATTTC AATTCTTTG GGTGTGTTCT
GCCCCACTG CTTATAATGC TGGTGATCTA CATTAAAGATC TTCCTGGTGG CCTGCAGGCA GCTTCAGCGC
ACTGAGCTGA TGGACCACTC GAGGACCACC CTCCAGCGGG AGATCCATGC AGCCAAGTCA CTGGCCATGA
TTGTGGGGAT TTTTGGCCTG TGCTGGTTAC CTGTGCATGC TGTTAACTGT GTCACTCTTT TCCAGCCAGC

TCAGGGTAAA	AATAAGCCCA	AGTGGGCAAT	GAATATGGCC	ATTCTTCTGT	CACATGCCAA	TTCAGTTGTC
AATCCCATTG	TCTATGCTTA	CCGGAACCGA	GACTTCCGCT	ACACTTTTCA	CAAAATTATC	TCCAGGTATC
TTCTCTGCCA	AGCAGATGTC	AAGAGTGGGA	ATGGTCAGGC	TGGGGTACAG	CCTGCTCTCG	GTGTGGGCCCT
ATGATCTAGG	CTCTCGCCTC	TTCCAGGAGA	AGATACAAAT	CCACAAGAAA	CAAAGAGGAC	ACGGCTGGTT
TTCATTGTGA	AAGATAGCTA	CACCTCACAA	GGAAATGGAC	TGCCTCTCTT	GAGCACTTCC	CTGGAGCTAC
CACGTATCTA	GCTAATATGT	ATGTGTCACT	AGTAGCACCA	AGGATTGACA	AATATATTTA	TGATCTATTC
AGCTGCTTTT	ACTGTGTGGA	TTATGCCAAC	AGCTTGAATG	GATTCTAACA	GACTCTTTTG	TTTTTAAAG
TCTGCCTTGT	TTATGGTGGG	AAATTACTGA	AACTATTTTA	CTGTGAAACA	GTGTGAACTA	TTATAATGCA
AATACTTTTT	AACCTAGAGG	CAATGGAAAA	ATAAAGTTG	ACTGTACTAA	AAATGTATAC	TTGTTGCCAG
GAAGGTGACC	TCAAAAATTA	AAAGTATAAT	TATTCCGCCG	GGCATGGTGG	CTCACACCTG	TAATCCAGC
ACTTTTGGGAG	GCCAAGGCAG	GCGGATCAG	AGGTCAGGAG	TTCAAAACCA	GCCTGTCCAA	TATAGTG
TTAGTTATCC	GCCGCCACCA	AGACGCGGCA	CGGCGCCTGG	ACCGGAGGGG	CCCCGCGCGG	GCGCGAACTT
TGGGCTCGGG	CGAGTGGGTG	GTGCTCCGCC	CAGCCCAGAG	CGGGCGGGCG	CGCGGGCCAA	TGGGTGCCGC
CTCTTGCGCG	CGGGGGGCCC	CGACCCGTGG	GTCCCGGCCA	CCAGCGCCCC	AGCCCCGAGG	CTCAGAAGCG
GCAGGCGGAG	GCGCGGTCCG	GGCGCTATGG	CCATGCCCGG	CGGGTCTCAC	GCGGCTGCCC	CTCGCCCGGC
GCGCCTTCGG	TAGGGGGCGC	CCGGGGCCCA	GCTGGCCCGG	CCATGCTGCT	GGAGACACAG	GACGCGCTGT
ACGTGGCGCT	GGAGCTGGTC	ATCGCCGCGC	TTTCGGTGGC	GGGCAACGTG	CTGGTGTGCG	CCGCGGTGGG
CACGGCGAAC	ACTCTGCAGA	CGCCACCAAA	CTACTTCTCT	GTGTCCCTGG	CTGCGGCCGA	CGTGGCCGTG
GGGCTCTTCG	CCATCCCCCT	TGCCATCACC	ATCAGCCTGG	GCTTCTGCAC	TGACTTCTAC	GGCTGCCTCT
TCCTCGCCTG	CTTCGTGCTG	GTGCTCACGC	AGAGCTCCAT	CTTCAGCCTT	CTGGCCGTGG	CAGTCGACAG
ATACCTGGCC	ATCTGTGTCC	CGCTCAGGTA	TAAAAGTTTG	GTCACGGGGA	CCCAGGACAG	AGGGGTCAAT
GCTGTCTCTT	GGGTCTTTCG	CTTTGGCATC	GGATTGACTC	CATTCTGGGG	GTGGAACAGT	AAAGACAGTG
CCACCAACAA	CTGCACAGAA	CCCTGGGATG	GAACCACGAA	TGAAAGCTGC	TGCCCTGTGA	AGTGTCTCTT
TGAGAAATGT	GTCCCCATGA	GCTACATGGT	ATATTTCAAT	TTCTTTGGGT	GTGTTCTGCC	CCCACTGCTT
ATAATCTTGG	TGATCTACAT	TAAGATCTTC	CTGGTGGCCT	GCAGGCAGCT	TCCAGTATGG	GAGCTGATGG
ACCACTCGAG	GACCAACCCTC	CAGCGGGAGA	TCCATGCGAG	CAAGTCACTG	GCCATGATTG	TGGGGATTFT
TGCCCTGTGC	TGGTTACCTG	TGCATGCTGT	TAAGTGTGTC	ACTCTTTTCC	AGCCAGCTCA	GGGTAAAAAT
AAGCCCAAGT	GGGCAATGAA	TATGGCCATT	CTTCTGTGAC	ATGCCAATTC	AGTTGTCAAT	CCCATTGTCT
ATGCTTACCG	GAACCGAGAC	TTCCGCTACA	CTTTTCACAA	AATTATCTCC	AGGTATCTTC	TCTGCCAAGC
AGATGTCAAG	AGTGGGAATG	GTCAGGCTGG	GGTACAGCCT	GCTCTCGGTG	TGGGCCTATG	ATCTAGGCTC
TCGCCTCTTC	CAGGAGAAGA	TACAAATCCA	CAAGAAACAA	AGAGGACACG	GCTGTTTTTC	ATTGTGAAAG
ATAGCTACAC	CTCACAAGGA	AATGGACTGC	CTCTCTTGAG	CACTTCCCTG	GAGCTACCAC	GTATCTAGCT
AATATGTATG	TGTGAGTAGT	AGGCTCCAAG	GATTGACAAA	TATATTTATG	ATCTATTTCG	CTGCTTTTAC
TGTGTGGATT	ATGCCAACAG	CTTGAATGGA	TTCTAACAGA	CTCTTTTGTT	TTTAAAGTTC	TGCCTTGTTT
ATGGTGAAAA	ATTACTGAAA	CTATTTTACT	GTGAAACAGT	GTGAACTATT	ATAATGCAAA	TACTTTTTAA
CTTAGAGGCA	ATGGAAAAAT	AAAAGTTGAC	TGTAATAAAA	ATG	CCCAGCCCCG	AGGCTCAGAA
GAGGCGCGGT	CCGGGCGCTA	TGGCCATGCC	CGGCGGGTCT	CACGCGGCTG	CCCCTCGCCC	GGCGCGCCTT
CGGTAGGGGG	CGCCCCGGGC	CCAGCTGGCC	CGGCCATGCT	GCTGGAGACA	CAGGACGCGC	TGTACGTGGC
GCTGGAGCTG	GTCACTCGCG	CGCTTTCGGT	GGCGGGCAAC	GTGCTGGTGT	CGCGCGCGGT	GGCAGCGGCG
AACACTCTGC	AGACGCCCCAC	CAACTACTTC	CTGGTGTCCC	TGGCTGCGGC	CGACGTGGCC	GTGGGGCTCT
TCGCCATCCC	CTTTGCCATC	ACCATCAGCC	TGGGCTTCTG	CACTGACTTC	TACGCTGCCC	TCTTCTCGGC
CTGCTTCGTG	CTGGTGCTCA	CGCAGAGCTC	CATCTTCAGC	CTTCTGGCCG	TGGCAGTCGA	CAGATACCTG
GCCATCTGTG	TCCCGCTCAG	GTATAAAAGT	TTGGTCACGG	GGACCCGAGC	AAGAGGGGTC	ATTGCTGTCC
TCTGGGTCTT	TGCCTTTGGC	ATCGGATTGA	CTCCATTCTT	GGGGTGGAAC	AGTAAAGACA	GTGCCACCAA
CAACTGCACA	GAACCTGGG	ATGGAACCAC	GAATGAAAGC	TGCTGCCTTG	TGAAGTGTCT	CTTTGAGAA
GTGGTCCCCA	TGAGCTACAT	GGTATATTTT	AAATTTCTTT	GGTGTGTTCT	GCCCCCACTG	CTTATAATGC
TGGTGTACTA	CATTAAGATC	TTCTTGGTGG	CCTGCAGGCA	GCTTCAGCGC	ACTGAGCTGA	TGGACCACTC
GAGGACCACC	CTCCAGCGGG	AGATCCATGC	AGCCAAGTCA	CTGGCCATGA	TTGTGGGGAT	TTTTGCCCTG
TGCTGGTTAC	CTGTGCATGC	TGTTAACTGT	GTCACTCTTT	TCCAGCCAGC	TCAGGGTAAA	AATAAGCCCA
AGTGGGCAAT	GAATATGGCC	ATTCTTCTGT	CACATGCCAA	TTCAGTTGTC	AATCCCATTG	TCTATGCTTA
CCGGAACCGA	GACTTCCGCT	ACACTTTTCA	CAAAATTATC	TCCAGGTATC	TTCTCTGCCA	AGCAGATGTC
AAGAGTGGGA	ATGGTCAGGC	TGGGGTACAG	CCTGCTCTCG	GTGTGGGCCT	ATGATCTAGG	CTCTCGCCTC

TTCCAGGAGA	AGATACAAAT	CCACAAGAAA	CAAAGAGGAC	ACGGCTGGTT	TTCATTGTGA	AAGATAGCTA
CACCTCACAA	GGAAATGGAC	TGCCTCTCTT	GAGCACTTCC	CTGGAGCTAC	CACGTATCTA	GCTAATATGT
ATGTGTCAGT	AGTAGCACCA	AGGATTGACA	AATATATTTA	TGATCTATTC	AGCTGCTTTT	ACTGTGTGGA
TTATGCCAAC	AGCTTGAATG	GATTCTAACA	GACTCTTTTG	TTTTTAAAAG	TCTGCCTTGT	TTATGGTGGA
AAATTACTGA	AACTATTTTA	CTGTGAAACA	GTGTGAACTA	TTATAATGCA	AATACTTTTT	AACTTAGAGG
CAATGGAAAA	ATAAAAGTTG	ACTGTACTAA	AAATGTATAC	TTGTTGCCAG	GAAGGTGACC	TCAAAAATTA
AAAGTATAAT	TATTCGGCCG	GGCATGGTGG	CTCACACCTG	TAATTCCAGC	ACTTTGGGAG	GCCAAGGCAG
GCGGATCACG	AGGTCAGGAG	TTCAAAACCA	GCCTGTCCAA	TATAGTG	GGGCAATTG	TTAGTTATCC
AGACGCGGCA	CGGCGCCTGG	ACCGGAGGGG	CCCCGCGCGG	GCGCGAACTT	TGGGCTCGGG	CAGATGGGTG
GTGCTCCGCC	CAGCCCCGAGA	CGGGCGGGCG	CGCGGGCCAA	TGGGTGCCGC	CTCTTGGCCG	CGGGGGGCC
CGACCCGTGG	GTCCCGGCCA	CCAGCGCCCC	AGCCCCGAGG	CTCAGAAGCG	GCAGGCGGAG	GCGCGGTCCG
GGCGCTATGG	CCATGCCCCG	CGGGTCTCAC	GCGGCTGCCC	CTCGCCCGGC	GCGCCTTCGG	TAGGGGGCGC
CCGGGGCCCA	GCTGGCCCCG	CCATGCTGCT	GGAGACACAG	GACGCGCTGT	ACGTGGCGCT	GGAGCTGGTC
ATCGCCGCGC	TTTCGGTGGC	GGGCAACGTG	CTGGTGTGCG	CCGCGGTGGG	CACGGCGAAC	ACTCTGCAGA
CGCCACCAAA	CTACTTCCTG	GTGTCCCTGG	CTGCGGCCGA	CGTGGCCGTG	GGGCTCTTCG	CCATCCCCTT
TGCCATCACC	ATCAGCCTGG	GCTTCTGCAC	TGACTTCTAC	GGCTGCCTCT	TCCTCGCCTG	CTTCGTGCTG
GTGCTCACGC	AGAGCTCCAT	CTTCAGCCTT	CTGGCCGTGG	CAGTCGACAG	ATACCTGGCC	ATCTGTGTCC
CGCTCAGGTA	TAAAAGTTTG	GTCACGGGGA	CCCGAGCAAG	AGGGGTCATT	GCTGTCCTCT	GGGTCCCTGC
CTTTGGCATC	GGATTGACTC	CATTCCTGGG	GTGGAACAGT	AAAGACAGTG	CCACCAACAA	CTGCACAGAA
CCCTGGGATG	GAACCACGAA	TGAAAGCTGC	TGCCTTGTGA	AGTGTCTCTT	TGAGAATGTG	GTCCCCATGA
GCTACATGGT	ATATTTCAAT	TTCTTTGGGT	GTGTTCTGCC	CCCACTGCTT	ATAATGCTGG	TGATCTACAT
TAAGATCTTC	CTGGTGGCCT	GCAGGCAGCT	TCAGCGCACT	GAGCTGATGG	ACCACTCGAG	GACCACCCTC
CAGCGGGAGA	TCCATGCAGC	CAGTCACTG	GCCATGATTG	TGGGGATTTT	TGCCCTGTGC	TGGTTACCTG
TGCATGTGTT	TAACTGTGTC	ACTCTTTTCC	AGCCAGTCA	GGGTAAAAAT	AAGCCCAAGT	GGGCAATGAA
TATGCCATT	CTTCTGTAC	ATGCCAATTC	AGTTGTCAAT	CCCATTTGCT	ATGCTTACCG	GAACCGAGAC
TTCCGCTACA	CTTTTCACAA	AATTATCTCC	AGGTATCTTC	TCTGCCAAGC	AGATGTCAAG	AGTGGGAATG
GTCAAGCTGG	GGTACAGCCT	GCTCTCGGTG	TGGGCCATATG	ATCTAGGCTC	TCGCCTCTTC	CAGGAGAAGA
TACAAATCCA	CAAGAAACAA	AGAGGACACG	GCTGGTTTTT	ATTGTGAAAG	ATAGCTACAC	CTCACAAGGA
AATGGACTGC	CTCTCTTGAG	CACTTCCCTG	GAGCTACCAC	GTATCTAGCT	AATATGTATG	TGTCAGTAGT
AGGCTCCAAG	GATTGACAAA	TATATTTATG	ATCTATTTCAG	CTGCTTTTAC	TGTGTGGATT	ATGCCAACAG
CTTGAATGGA	TTCTAACAGA	CTCTTTTGTI	TTTAAAAGTC	TGCCTTGTTT	ATGGTGAAAA	ATTACTGAAA
CTATTTTACT	GTGAAACAGT	GTGAACATAT	ATAATGCAAA	TACTTTTTTA	CTTAGAGGCA	ATGAAAAAAT
AAAAGTTGAC	TGTACTAAAA	ATG				

(2) INFORMATION FOR SEQ ID NO:3007:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11395 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3007:

ACA GAG CAG TGC TGT TGT TGG GCA TCT TGC CTT CCC AGG G BCB GBG CB TGC TGT TGT TGG GCB
TCT TGC CTT CCC BGG GCC CTT TTC TGG TGG GGT GCT GTT GGT GGG CTT TCT TCT GTT CCC
BCB GBG CBG TGC TGT TGT TGG GCB TCT TGC CTT CCC BGG GCC CTT TTC TGG TGG GGT GGT GCT
GTT GTT GGG C TTT CTT CTG TTC CC GAATTCCCAG ATGGGCAGAG GTGGCTGGGC TGGTGACCTT
AAGTGTGTCT CCTGCCTTTA TTCTCTCTAG TGGGTTATTC TTTCATGTGG TATCTTGCCT ACAGCATGCT
GTGTTTGGAC ACAAACCCCT TTCTTGGTT TCTCTGACCC AGCTGAGATG GACTGATTCC AAAAGAACTC
ACCTATGTAC TGGGGTAGGG GAGGGAGGGT TTTTTCAGT ATTTAACTAA GGTTCAAAGA GTGCTATATA
GTGAGAAAGG CTTCTTTTTT TTTTTTTTTT TTTTTTGGCA GAGTGTGCC TCCTAGAAAT TTCTCTTGGT
AACTTCCTTC TCTGAAGCAC AGATAAGAA AACAATTACA GTAGAAACAT TTATGAGGGA CACATTGGAG
GCCGATGAAG CTTTTCAAGT TCCAGCAGTG CAGGGATGTG GGCAGAACTG ACATTGGAAA ATACTAGAAT
GATGGAAATT CAGTTGGAGA GGACTGCCCT TTTTAATGTC TGGGGAGTCT GCTCAGGGAG AAATGACAAG
TCTGGCGGGG ACAAGTATGG GATTTGGTAA GACTTGGATC AACTTGGGAT ACAGGGTGGG GGTCTGGGAGT

GGAATCAATG	AATGATGCCA	GAGCAGATCA	ACTAACAAGA	GGACCCTGAT	GAGCCCCAGG	CAGAGGCGTC
TCCCTTATGC	CCCACCTCTGA	AGTGTCTTGT	AGTAAACACC	AGAACGCCAT	TGTTGTTACT	GCTGAATTTT
ATTTTGGGCT	GTACATATTT	AGATGCTTAA	GGTAAAAATG	ATAAAGCCCT	CAAGCCACTG	TGTGGGTTTG
GGTCCAAGTG	TTCCTTCTTG	CTGCCTCTCT	AACACGCCTG	GTTAAAATAA	TCCCTTTGGA	TGGTGTCTGAG
AAGCACCTGA	ACCAAGTGGG	TCCCCAAATA	ACAATGGCGT	GCAAGTGTCT	GGTTCCCAGA	AGTTGGTGAC
TAGGTAAGCA	GCTTCAGGGA	GAGGGGGCTG	ATTCCCAGAC	AGTCGCCTGT	TCCTGCGGGG	ATGGGGCTGA
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CCTGCTCTCG	GAGGATGCCT	AGGAGATGTT	GGGAACAGAA	GAAATAAACT	GAGTTTAAAG	GGGACTTAA
CTGCTGAATT	C					

(2) INFORMATION FOR SEQ ID NO:3008:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6106 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3008:

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 CTC TGT TCT TGT TTT GGG GGC GGG CCC GGC CGT TGT CTT G GTT TGG GGG TTT CCG TTG GGG
 TTC TCC TGG CCC GGG CCT TGC CC GGC CGT GGT CCC GGC TTC GTTCCT GTC TCC GTC TCG GCT
 CTT CTG GGG CCT TGC GCT GTC TTT GGT G 5=-GCB CCG TCC BGT GBT GGT GCG GTB CTT GTC GCT
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GTCGCTCCCC TTCGGCTGGA CCCCCAGCAG GAGGCGCAAT GGCTTCCTTC TCCCTCTTGT CCGGGCTGTC
TCCAACCAGA TTGTGCGCTT CCCCATGAG AGACTGACCT CCGACCGTGG CCGAGCCCTC ATGTTTCATGC
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ACAGAGTCCG CAACCAGATC AACGCGCTCA CCTCCTTTGT GGACGCCAGC ATGGTGTATG GCAGTGAGGT
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GACAACGGCC GGGCCCTGCT GCCCTTCGAC AACCTGCACG ATGACCCCTG TCTCCTCACC AACCGCTCGG
CGCGCATCCC CTGCTTCCTG GCAGGTGACA CCCGATCAAC GGAAACCCCC AAAGTGGCAG CCATGCACAC
CCTCTTTATG CGAGAGACA ACCGGCTGGC CACCGAGCTG AGACGCCTGA ATCCCCGGTG GAATGGAGAC
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CGGAGACAGG TTCTGGTGGC AGAACGAGGT GTTTTCACCA AAGACAGCGC AAGGCCTGA GCAGAATTTTC
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CCAGGAGTGA AGGCTGGGGG CTCCTATCAG CAATGGACCT TCCGCCCTGG GAGCCTCTTA GGTATTAGGC
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ACCCTCGGT CCTAGCCTCC AGACACCCCA CAATACTCCT CTGAGCCTGA GGCCAGGCAG CATGCTCTGC
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(2) INFORMATION FOR SEQ ID NO:3009:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 146987 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3009:

BBG TGB GBG CTG BGB GBB BCT GTG BBG CBB TCB TGB CTT CBB GBG TTC TTT TCB CCC GTT CTT
GGC TTC TTC TGT C CGT TGG CTT CTC GTT GTC CC TGT GGG CTT CTC GTT GTC CC CCC TTC GGG
GGC TGG TGG GGC CGT CCT TGC CTG CTG G GTT CTT GGC TTC TTC TGT CCG T TGG CTT CTC GTT
GTC CC TGT GGG CTT CTC GTT GTC CC CCC TTC GGG GGC TGG TGG GGC CGT CCT TGC CTG CTG G
CCTGAGACAG AGGCAGCAGT GATACCCACC TGAGAGATCC TGTGTTTGAA CAACTGCTTC CAAAACGGA
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CCAACAATAG	GCAAAAAGAT	GAGGACTGCG	TGGAGATCTA	CATCAAGAGA	GAAAAAGATG	TGGGCATGTG
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TTCAAAGCAA	CCTAAATACA	GGTCTGGGTT	TGTATTCCTA	GTGGGATGTT	ACAGAGGTTA	GTGTGATGCA

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CTCGGTGTCA	CTGGCAATCC	TTAGCTTACT	TTGGCTTTCT	GTGTCTTCAC	ATCATCTTTT	TATAAGAAACA
CCAGTGATAG	TGATTAAGGG	CATACCTTAC	TTAATATGA	CCTCATCTTA	ACTAATTATG	TCTTCAATAA
CCCTATTTCC	AAATAAGGCC	ACATTCTGAA	GTATTGGGAG	TTAGAACTTA	AAGCTTTTTG	GGAGGGACAC
AGTTCAACCC	ATAACAACCC	CTAAAATCGA	TATTTATTCT	CAATTAAGTC	TTGAAATTGG	TTTCAAAAAG
AGAAATATTCT	ATTAGAGTTT	TTAATGTATA	GTTTAAACAT	ATAGTTCTTT	AGCCCCCAAT	TTTTTTTTTT
TTTTTTTTTT	TTTTTTTTTT	TTTTTGAGAC	GGAGTCTCGC	TCTGTGCGCC	AGGCCGGAAT	CGCGACTGCA
GTGGCGCAAT	CTCGGCTCAC	TGCAAGCTCC	GCTTCCCGGG	TTCACGCCAT	TCCCCTGCCCT	CAGCCTTCCCG
AGTAGCTGGG	ACTACAGGCG	CCTGCCACCG	CGCCCGGCTA	ATTTTTTTGT	ATTTTTTAGTA	GAGACGGGGT
TTACACCTGT	TAGCCAGGAT	GGTCTCGATC	TCCTGACCTC	ATGATCCACC	CGCCTCGGCC	TCCCAAAGTG
CTGGGATTAC	AGGCGTGAGC	CACCGCGCCC	GGCCTGCCCC	CAATTATTTA	GTTTTTCTAT	AAACAGGGAA
ATTTATTTGT	GTGGCCCTTA	GAACCTAATT	AATTTCCACT	CTAATTCCTA	CTTATGTTTA	TATAATGCTT
TTAGAAATTT	GTATTATTCA	GAAAATAAAC	ATATACTATT	GTATCTGTTG	CCTACACTTA	GATTTTATTG
CCTGCTATAT	TTAAATTTTA	TTAGTATTTT	AATTGTTTTA	TTAAAGAAAG	AATGTGCCTG	TAATCTCAGC
ACTTTTGAGA	GGCCAAGGCA	GAAGGATTGC	TTGAGCCCAG	GAGTTTGAGA	CCAGACTGAG	CAACACAGGG
AGACCCCAT	CTCTACAAAA	AATAAAAAAA	TTCTCCAGGC	CTCATGGCAC	ATACCTGTAG	TTCTAGTTAC
TTGGGAGACT	GGGGTGGGAG	GATGCATTGA	GCCCAGGAGA	TTGAGGCTGC	AGTGAGCCAT	GATCAGGCCA
CTGTACTCCA	GCTTGGACAA	CAGAGTGAGA	GCTTGTCTAG	ATAGATAGAT	AGATAGATAA	TCTAAATAGA
TAATAGACAG	ATTATCTAAA	TAGATAATAG	ACAGATTATC	TAAATAGATA	ATAGACAGAT	TATCTAAATA
GATAATAGAC	AGATTATCTA	AATAGATAAT	AGACAGATTA	TCTAAATAGA	TAATAGACAG	ATTATCTATC
TAAATAGATA	ATAGATTATC	TAAATAGATA	ATAGATAGAT	AGATTAGATA	GATAGATAGA	TAGATAGAGC
TTGGACAACA	GAGTGAGAGC	CTGTCTAGAT	AGATAGAAAC	AAAGAAAGAA	AGAAAGAATG	GTGCTCATAT
TTTAAAGCAT	TGAAAAATGG	TCTTCCCTGC	TTATATTACC	CACACCTTCT	TTGTTGGCAT	TAAGATGCAA
ACTTTGTTTT	AAACAGTTGA	GTAAATCAAA	GATGGGACTG	TTAAGTTATT	TGTGTTATTT	ACCTGCTTTT
TGAAAAGTGA	AAAATAAAAC	TCTAGGTTTA	ATTAGTAGTA	TGCTATTTAG	TAATGAAGTA	AAGCTAGAGG
CTTCGAACAA	ATCTTGTTGA	ATTTCCCTTT	GAATGAGAGA	GAAAATTTAA	AGTAAGCAAA	CAATAAGTT
GTGTGTCACC	ACTCATTGAG	TCATTTAACA	AGTATTTCCA	GAGTACTTAT	TCTGTGCCAG	GAAATGTTGT
AGGTGCCCTC	AACAACCTAG	AGTCTAGCCT	GAGACACAAG	TAAGTAGGTA	ATTATTATAG	AATGGTATGA
TCTTTGGAGG	ACTGGGTATT	GGCTGGCTCA	TGGGAGTACA	AGATAGGTAC	CCAGTGATGA	AGTCAGGAAA
GGTTTCTTAT	GGTGATATGA	TGACGTCTAT	GCTGATTATA	AGGTCAAGTG	AGAATAAACT	TTGTGCTTTT
AAATTTGCAT	AGCACTGTAT	TAGAGAGTTC	ATCTTCAAAA	TAATCGAAAA	GGCTGAGTGT	GGTGACCCAT
GGCTGTAATC	CCAGCACTTT	GGGAGGCCGA	GGTGGGCAGA	TTGCTTGAGC	TAGGAGTTCT	AGACCAGGCT
GGCCAACATG	GTGAAACCCC	GTCTCTACTA	AAAATACAAA	AATTAGCCAG	GAGTGATGGT	GCGCACCTGT
AATGCCAGCT	ACTTGGGAGG	CTGAGGCAGG	AGGATCACTT	GAACCCAGGA	GGTGGAGGTT	GAAGTAAGCC
GAGGTCATGC	CACTGCACTC	CAGCCTGGGC	AACAGAGTGA	GACTCCATCT	CAAAAAAATA	AAAAATGATC
AAAGAAAGGT	GAATTTTCAT	CTACCCTATT	TCTGCTGAGG	AAAAATGGACT	ATTTTCAAAT	ATTTTAAATA
AGGGTCAAAA	TGAGGGATC	GCCACCATGG	AAACCTTTTG	CCTCAGGGCA	TCCTTTTGGC	TGGCACTGGT
ATCAGTGATA	ATCCTGAGAG	ATACAGCACA	AATCTAAGCA	ATCATGTGGA	TGATTTTACC	ACTTTTCGTG
GCACAGAGCT	CAGCTTCTCT	GTTACCACTC	ATCAACCCAC	TAATTTGGTC	CTACCCAGCA	ATGGCTCAAT
GCACAACTAT	TGCCCACAGC	AGACTAAAAAT	TACTTCAGCT	TTCAAATACA	TTAACACTGT	GATATCTTGT
ACTATTTTCA	TCGTGGGAAT	GGTGGGGAAT	GCAACTCTGC	TCAGGATCAT	TTACCAGAAC	AAATGTATGA

GGAATGGCCC	CAACGCGCTG	ATAGCCAGTC	TTGCCCTTGG	AGACCTTATC	TATGTGGTCA	TTGATCTCCC
TATCAATGTA	TTTAAGCTGC	TGGCTGGGCG	CTGGCCTTTT	GATCACAATG	ACTTTGGCGT	ATTTCTTTGC
AAGCTGTTCC	CCTTTTTCGA	GAAGTCCTCG	GTGGGGATCA	CCGTCCTCAA	CCTCTGCGCT	CTTAGTGTTC
ACAGGTACAG	AGCAGTTGCC	TCCTGGAGTC	GTGTTTCAGG	AATTGGGATT	CCTTTGGTAA	CTGCCATTGA
AATTGCCTCC	ATCTGGATCC	TGTCCTTTAT	CCTGGCCATT	CCTGAAGCGA	TTGGCTTCGT	CATGGTACCC
TTTGAATATA	GGGGTGGACA	GCATAAAACC	TGTATGCTCA	ATGCCACATC	AAAATTCATG	GAGTTCCTACC
AAGATGTAAA	GGACTGGTGG	CTCTTCGGGT	TCTATTTCTG	TATGCCCTTG	GTGTGCACTG	CGATCTTCTA
CACCCTCATG	ACTGGTGAGA	TGTTGAACAG	AAGGAATGGC	AGCTTGAGAA	TTGCCCTCAG	TGAACATCTT
AAGCAGCGTC	GAGAAGTGGC	AAAAACAGTT	TTCTGCTTGG	TTGTAATTTT	TGCTCTTTGC	TGGTTCCTCTC
TTCATTAAAG	CCGTATATTG	AAGAAAACCTG	TGTATAACGA	GATGGACAAG	AACCGATGTG	AATTACTTAG
TTTCTTACTG	CTCATGGATT	ACATCGGTAT	TAACCTGGCA	ACCATGAATT	CATGTATAAA	CCCCATAGCT
CTGTATTTTG	TGAGCAAGAA	ATTTAAAAAT	TGTTTCAGT	CATGCCTCTG	CTGCTGCTGT	TACCAGTCCA
AAAGTCTGAT	GACCTCGGTC	CCCATGAACG	GAACAAGCAT	CCAGTGGAAG	AACCACGATC	AAAACAACCA
CAACACAGAC	CGGAGCAGCC	ATAAGGACAG	CATGAAGTGA	CCACCTTAG	AAGCACTCCT	

(2) INFORMATION FOR SEQ ID NO:3010:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2936 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3010:

CCGGGGCTGC	BGCBBCTCB	TCBGCTCTTG	CTTGGTGGTGG	CTCBGCTTGG	GCCTGCBGGG	CCBCCBGGBG
BBTGGCBGCB	BGGBTGGCGB	GGGTCTCTBT	GGCTGGGGTC	BCBGTCTCTC	TBGTBGGCB	GGGTBCCBG
BGGGGC						
GGG TCC TCB	TGG CTG GGG	GCC TGG GCC	TGC BGG GCC	GCT CTT GCC	TGG BGT GGC	TC GCC CBG BGT
CTT CCC TGG	T GCTCAGCCTC	CAAAGGAGCC	AGCCTCTCCC	CAGTTCCTGA	AATCCTGAGT	GTTGCCTGCC
AGTCGCCATG	AGAACTTCCT	ACCTTCTGCT	GTTTACTCTC	TGCTTACTTT	TGTCTGAGAT	GGCCTCAGGT
GGTAACTTTC	TCACAGGCCT	TGGCCACAGA	TCTGATCATT	ACAATTGCGT	CAGCAGTGGA	GGGCAATGTC
TCTATTCTGC	CTGCCCAGTC	TTTACCAAAA	TTCAAGGCAC	CTGTTACAGA	GGGAAGGCCA	AGTGCTGCAA
GTGAGCTGGG	AGTGACCAGA	AGAAATGACG	CAGAAGTGAA	ATGAACTTT	TATAAGCATT	CTTTTAATAA
AGGAAAATTG	CTTTTGAAGT	AT CTGCACTGGT	AAAAAGATTG	TATATCTGCT	GTTTGATGAA	TGCAGACCCC
ACTAGCCACA	TAGTGCTCGT	GAGCACTTGC	AATGCGGCTA	GGGTGATTTC	AATTAACCTA	AAAGAGAACA
GCCACAGGGA	GCATGTGGCT	GCCATATTGG	ATGGTGCTGC	TTTGAGAACA	AAATGAGAGA	AATGAAGCCT
CTATTACCT	TGTTTGGCGG	AACACATTGA	AGGGACTCTG	TATTGATACC	AGGCTTCAAA	CTTTGGGAAG
TGTACTGGCC	AACTTAAACA	CATCCACAGG	AGAATGAAGA	GGTTTGGGAA	GGGACCAGAA	ACCAGGCATT
GAGGACAATG	AGAAGAGTTT	TTCAAAAGTG	GAATTACTGC	AAAAAGTGGA	AAAATAGCCT	TTGGATGGAA
GTTACTGATG	AGACAATTTT	CATCGGTGTG	AAAGCCATCT	TTCCAACAGA	GATCTGCAAC	ATGAGAATGT
ACTGTCTCCT	AGGGTAGCGA	TGGCCTCTTG	TATTAGTCCG	CTCAGGCTAC	CAGATTTATC	GTTTAAACTG
CCCATAAACA	GACCAGGCAG	TTTAAACAAC	AGAAATTTAT	TTCTCTCGAG	TCCTGGAGGC	AGGAAGTCTG
CGATCAAGGT	GGAAGCAGGG	TTGGCTTCTT	CTCAGGTGTC	TGTCCTTGGC	TGGTAGATGA	CCGCCGCCTC
CCTGGGTCTC	CACATGGTCT	TTCTCTGTG	TGTGTCTGTC	CCAATCTCTT	CTTATAAGGA	TGCAAGTCTT
ATGGATCAGA	GCACACCCCA	ATGACCGTGT	TTAACTTGAA	TCACCTCTTT	AAAGTTTCTC	TCTCCAATA
CAATCACCTC	CTGAGGCACT	GTTAGGGCTT	CGACACAGGA	ATTCTTTTCC	TAGGGGATTTC	AGTTCAGTCC
AAAACGCCTA	CCAGTGAGGA	CTTGCAACAT	GGCGGCCTGC	TGGTCCCTCG	CCAGGAATAT	CACAGGCGAC
TGTTCCCTGT	TGCATGGAAT	AGAAGGCTAT	TCCAGAGTAC	TGTCTCTATT	TATCAGATCT	GGGATACTGG
GAGAAGGGCA	AAATAAAGTC	CAAGTAGAAA	AAAAAACTAT	GAAAGTTTGA	GAGAGTAACC	ATAATTTTCAG
CCCGATGTGA	AACGATCCTA	GATTTTCAGCT	GAAATAGTGA	TGTGGGAAAGT	GAGGGGGCCG	GGATTCAAGG
CAGAGGGAAC	AGCGTAACTG	AAGGCATGGA	AGGAGGGGAA	TGTAGGCTGT	GTTTGAAGAG	TGGCAGCTGC
TTCCACATTT	CTAAACACA	GGATGTGATT	TTGGGGTGTG	TTGAGACAAG	GCAGAAAAC	TGTTTGGAAA
AATAACTTGA	ATTCCCTGCA	CATTTAAAT	CTCTCAGCAG	AAGAAAACCC	CACTCAGAAC	CCCACTGTTC
ATTCCTTGGC	TTGTATTTGG	SCACAGCTGG	CATAGCCCCA	GAAGAGAGAA	CTCTCCGGTG	TTTTGCAGTT
CATGAGTAGC	CCCAAAGATC	AATCATGGGC	CAATTTCTTG	GAAGAGAGAA	CTCTCCGGTG	TTTTGCAGTT
ATTTGTTCTG	CTTTCGCGAG	ATGTTCTCAA	ATCGTTGCAG	CTACAAGCCA	TGAGTCTGAA	GTGTTTGTGT

TCCCTCCTTA	CAGGTGGTAA	CTTCTCACA	GGCCTTGGCC	ACAGATCTGA	TCATTACAAT	TGCGTCAGCA
GTGGAGGGCA	ATGTCTCTAT	TCTGCCTGCC	CGATCTTTAC	CAAAATTCAA	GGCACCTGTT	ACAGAGGGAA
GGCCAAGTGC	TGCAAGTGAG	CTGAGAGTGA	CCAGAAGAAA	TGACGCAGAA	GTGAAATGAA	CTTTTTATAA
GCATTCTTTT	AATAAAGGAA	AATTGCTTTT	GAAGTATACC	TCCTTTGGGC	CAAAATGAAT	CTTGTGTCTC
AATTGGAAGA	GGTAAAGAAG	TAGGGGGTTA	GGGTGCATGG	GTTGGAACGT	GAGACAGGTC	GAACCACAAA
GCCTGCCTGG	AAAAGGGGAG	TGACGTCCTA	GGCTTCAGTG	ATGTCACCTC	CACCTTGTGT	GATCCACAAA
CCAACAGGTG	ACTGATTTTG	GTCAGCTCAG	CCTCCAAAGG	AGCCAGCCTC	TCCCCAGTTC	CTGAAATCCT
GAGTGTGGCC	TGCCAGTCGC	CATGAGAACT	TCCTACCTTC	TGCTGTTTAC	TCTCTGCTTA	CTTTTGTCTG
AGATGGCCTC	AGGTGGTAAC	TTTCTCACAG	GCCTTGGCCA	CAGATCTGAT	CATTACAATT	GGTCCAGCAG
TGGAGGGCAA	TGTCTCTATT	CTGCCTGCCC	GATCTTTACC	AAAATTCAAG	GCACCTGTTA	CAGAGGGAAG
GCCAAGTGCT GCAAGTGAGC TGGGAGTGAC CAGAAGAAAT GACGCAGAAG TGAAATGAAC TT						

(2) INFORMATION FOR SEQ ID NO:3011:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9454 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3011:

ATCCTTTAAG	TCAATGGACT	TTGCATCAGT	CACACCATCT	TTTGTACTTT	TGGACTTCCC	CAGCTATGTT
CAATAATTAC	TGTTCTTCCC	TTGGGCCCCA	TTGTAATGGC	TACAGCCTCG	ACAAAAAGTC	TACACTTTGA
AGCATTAAAG	CTCGGACATC	AGCACCAAAT	TTTACATCTT	TACCATCACT	TCAAGTGAGG	TGAGGAGCCA
GTAGCCTGGA	CAGTGGTCTC	ATCTGGTGAA	AGACTGTGGG	TAATGGAAGC	ATTCTGTGGG	GGTGCTGGCA
GGACATGTGC	ATGGCGAGGC	AGGTCATCAG	CAGCAAGTGA	GAGCTGCCTC	TTACTTTCTA	AAGGTGACAT
AGCAAATATA	CAAAAAAATA	TAAATAAATT	ATTAATTTAG	GTAGAGCACA	TAAAGGCTTT	ATTTCATATT
CCATTTCTCT	GTATGCTTTC	TTCACCAGGA	AGAAATAGTT	TTAGTGTGAG	GAATGAATGA	GTCTGCCCCCT
CAATTCCAGC	CTGCTCAACA	CACAAGGAAA	CAAAGCCCTG	ACAATCAGAG	TGACTCCCTG	GTGACTAAGC
TCCAGTCCTT	GGATGCATAT	TTGTTTAGCA	GTTCTGACAG	CATTTGACCC	AGCCCTCTCT	CTGCATATCC
CATCAGAACC	TTCTTTTTTT	TTTTTTTCTT	TGAGACTGAG	TCTTGCTCTG	TCGGAAGCGA	CTCCTGTGCC
TCAGCCTCCC	AAATACCTGG	AATTATAGGC	GTAAGCCATC	ATGCCTGGCT	AATTTTTGTA	TTTTTCATGG
AGATGGGGTT	TTGCCATGTT	GGTCAAATTG	GTCTCACACT	CCTGACCTCA	TGTGATCCAC	CTGCCCTCAGC
CTCCCAAAC	GCTGGGATGA	CAGGTGTAAG	CCACCATGCT	AGGCTCAGAA	ATTCTCTTTT	ATAAAAAATGT
CATTAAGGAT	CTTGGCTGCA	CAATATCGTT	ACCAGCTTCC	TTTAAATCCA	CTTCTGGCCT	GCCAGGAATC
AGGTTCTTCA	GAACCTGACA	TTTTAAATGA	AGAGGTCAGG	CAGTTCATGA	GGAAAGCCCT	ATTGTCCCCA
TGTCTCTGTC	ACTGCTGCAC	CCCTGAGACA	TCACAGACAT	GGACACTGGG	GCCTGCTTGT	TTCTCAAAC
GCCCTTAGAT	CGAAAGAGGG	AGGAACCAGG	ATGAATGCCA	CTCATTTTCC	CAAGAAAGGC	CCTCTCCTGA
GTGCCCCGGA	TGGGGCTCTG	TCCATTGCCT	GGGGCCGCCA	ATTGCTACTC	TGGGTTACGG	AGGAAGGACA
GGGTCCCTGAG	AGACACCAGA	GACCTCACAC	AGCCCTGAAA	ACATGGGGCT	CCTTCATAAG	TGTTTCCCAT
CACCAACAGG	GAGACCACGT	GGAGGCCTTG	CAGCCCCACT	CGGTGCTTCT	CCACCAAATC	CCAAGGGCAG
TGACGCTGAC	GTCTGTGGAA	AGCAGAGAAA	GCCCTGGCTC	CCAAAGCCCT	GAAGTCCCTG	TGGAGCTGAC
ATTCCCTGAG	TGACGGTGTG	AATGGAAGGA	ACTCAAGTGC	GGGTGGTAGG	CCACCTCCTG	GCCAGGCCCT
GGGTGAAC	TGAGGGGACA	CATGTAGTCA	CAATCCCATC	CTCCCATCTT	CCTTCTCAGA	GGAAGGAAGT
GGGCATCCAT	CTGCCTCATC	TCTCTCCCGT	GGGGAAGATG	GGGAGTTTCA	GGGGAACCTT	CACATAAATT
TCACCAAGCTC	AGATCTCCTG	TGAGGATGGG	GCCCACCATG	CTCCCGGTGC	TGCCAGAGGC	CCTGAGCCCC
TCCAGGGGTC	CCTGGGTTTG	AGCCAGCCCT	GTATCATCCC	CAGGAGCTGA	ATGTCAGAGC	AATGGATAGA
ATTAGATGGA	AAGAGCTCTC	AATTTGACCT	GAGACTGTCC	CCAGATACTC	AGGAAAAACA	GGACGTCGCA
CAGAGTGGGC	AGCAGGTGAG	TGGCAGGTTA	TAGGTCCTGA	GTTTGAGTTT	GTTCTCACGT	GAGACAGACC
CAGCCCCCTCA	CTCCATTAC	ACACTGGGTT	TTAAATGGTG	CAAGATAGGA	GCAATTTTCT	GGTCCCAAGA
GCAGGAGGAA	GGGATTTTCT	GGGGTTTCCT	GAGTCCAGAT	TTGCATAAGA	TCTCCTGAGT	GTGCATTGTT
CTTTGAGGAC	CATTCTCTGA	CTCACCAGGT	AAGTGGCTGA	ATTCTAACCT	CTGTAATGAG	CATTGCACCC
AATACCAGTT	CTGAACTCTA	CCTGGTGACC	AGGGACCAGG	ACCTTTATAA	GGTGGAAGGC	TTGATGTCCT
CCCCAGACTC	AGCTCCTGGT	GAAGCTCCCA	GCCATCAGCC	ATGAGGGTCT	TGTATCTCCT	CTTCTCGTTC
CTCTTCATAT	TCCTGATGCC	TCTTCCAGGT	GAGATGGGCC	AGGGAAATAG	GAGGGTTGGC	CAAATGGAAG

ATCTTGGCTG	CACAATATCG	TTACCAGCTT	CCTTTAAATC	CACCTCTGGC	CTGCCAGGAA	TCAGGGTTCT
TCAGAACCTG	ACATTTTAAA	TGAAGAGGTC	AGGCAGGTCA	TGAGGAAAGC	CTCATTGTCC	CCATGTCTCT
GTCACCTGCTG	CACCCCTGAG	ACATCACAGA	CATGGACACT	GGGGCTGCT	TGTTTCTCAA	ACTGCCCTTA
GATCGAAAGA	GGGAGGAACC	AGGATGAATG	CCACTCATTT	TCCCAAGAAA	GGCCCTCTCC	TGAGTGCCCG
GGATGGGGCT	CTGTCCATTG	CCTGGGGCCG	CCAATTGCTA	CTCTGGGTTA	CGGAAGAAGG	ACAGGGTCCT
GAGAGACACC	AGAGACCTCA	CACAGCCCTG	AAAACATGGG	GCTCCTTCAT	AAGTGTTCCT	CATCACCAAC
AGGGAGACCA	CGTGGAGGCC	TTGCAGCCCT	ACTCGGTGCT	TCTCCACCAA	ATCCCAAGGG	CAGTGACGCT
GACGTCTGTG	GAAAGCAGAG	AAAGCCCTGG	CTCCCAAAGC	CCTGAAGTCC	TGTGGAGCTG	ACATTCCCTG
AGTGACGGTG	TGAATGGAAG	GAACTCAAGT	GCGGGTGGTA	GGCCACCTCC	TGGCCAGGC	CTGGGTGAAC
TCTGAGGGGA	CACATGTAGT	CACAATCCCA	TCCTCCCAT	CTCCTTCTCA	GAGGAAGGAA	GTGGGCATCC
ATCTGCCTCA	TCTCTCTCCC	GTGGGGAAGA	TGGGGAGTTT	CAGGGGAACT	TTCACATAAA	TTTACCAGC
TCAGATCTCC	TGTGAGGATG	GGGCCCACCA	TGCTCCCGGT	GCTGCCAGAG	GCCCTGAGCC	CCTCCAGGGT
CCCTGGGTTT	GAGCCAGCCC	TGTATCATCC	CCAGGAGCTG	AATGTCCGAA	CAATGGATAG	AATTAGATGG
AAAGAGCTCT	CAATTGGGCT	TGAGACTGTC	CCCAGATACT	CAGGAAAAAC	AGGACGTCGC	ACAGAGTGCG
CAGCAGGTGA	GTGGCAGGTT	ATAGGTCTCG	AGTTTGAGTT	TGTTCTCACG	TGAGACAGAC	CCAGCCCCTC
ACTCCATTCA	CACACTGGGT	TTTAAATGGT	GCAAGATAGG	AGGAATTTTC	TGGTCCCAAG	AGCAGGAGGA
AGGGATTTTC	TGGGGTTTTCC	TGAGTCCAGA	TTTGCCATAAG	ATCTCCTGAG	TGTGCATTGT	CTTTTGAGGA
CCATTCTCTG	ACTCACCAGG	TAAGTGGCTG	AATTCTAACC	TCTGTAATGA	GCATTGCACC	CAATACCAGT
TCTGAACCTCT	ACCTGGTGAC	CAGGGACCAG	GACCTTTATA	AGGTGGAAGG	CTTGATGTCC	TCCCCAGACT
CAGCTCCTGG	TGAAGCTCCC	AGCCATCAGC	CATGAGGGTC	TTGTATCTCC	TCTTCTCGTT	CCTCTTCATA
TTCTGATGC	CTCTTCCAGG	TGAGATGGGC	CAGGGGAAATA	GGAGGGTTGG	CCAAATGGAA	GAATGGCGTA
GAAGTTCTCT	GTCTCTCTC	ATTCCCCTCC	ACCTATCTCT	CCCTCATCCC	TCTCTCTCCT	TCCTCTCTCT
GTGTGTCCCC	TCCATCCTTT	TCTCCTGCTT	CTCTCTCTTC	TTCCCTCTCT	CTCTTTTTTT	CTGTCTTTCT
TTTTCTCTCT	TCCCTAGAGC	ATGTCTTTCT	TTCTTTCTCT	TTCTTTCTTT	CTACCCACAC	TTTTAGACTG
AGTAGACTGA	ATGCCCTATT	TAATTGAACC	AAGCATTGCT	TCCTTCAATA	GAAAAGGAGT	TTGAGAACCC
AATGGACAAC	TCACTCGTTC	TTCTAAGCCA	ATATGAAGGA	GCCCAGTAGT	TTGTAAATAT	CATCTCTTCA
CTGCTTTCCA	TGCTACAAC	GCTGAGACTA	TGGTTGAAAC	CTGTTAGGTG	ACTTTTTTAA	TAAAAGGCAG
AAATTTTGAT	TTTATCTAAA	GAAAGTAGTA	TAGAAATGTCA	TTTTCTAAAT	TTTTATATTT	AAAGAGTAGA
TACTGCAACC	TAGAGAATTC	CAGATAATCT	TAAGGCCAG	CCTATACTGT	GAGAACTACT	GCAGCAGACA
CTCTGCCCCC	AGGACTTTTC	TGATCAGAGG	CCCTGAGAAC	AGTCCCTGCC	ACTAGGCCAC	TGCAGGTTCA
CAGGACAGGG	ACAGCCCATT	GAAACCAACT	TTTAAACCTG	GATGCCTAAC	CTTCATTTTC	TCCTTGATAT
TATGAAAATA	AAATAAAAAC	CATGAAAGGA	TAAAAGAGGG	AGAGTGGAAG	GGAAGGATGG	AGAAAGGGAA
AAAGAAAATT	TGAGAGTAAA	TCCTAAAACA	ATTAATCTAA	TAGATATCAT	CTTGTGAAAT	CCTCATTTTA
CCAATCTTAT	TTATGAGTCC	TGGGTTTTGT	GAGAACAAATG	GGGTCTGAG	AGGCACCAGA	GACCTCATAT
TTTCCAAAAC	CTAGAACAGT	ATAATGAAGG	AAGGAGGGAA	GGAGGGAGGG	AGGGAGGGAA	GGAGGGAAGG
AGGGAGGGAG	GGAGGGAAC	AAAAAGAAGA	ATGAGGTTGA	AACCAGGACT	TAGATATTAG	AAACAAGCCA
TTACAAAATT	TATTCTATG	GTTAATTGTG	GTTTTCAACT	GTAAGTTACT	TGGTGTTAAT	TTCTATTAA
ACAATTTTCA	TAAGTTGCAT	CTTTTTTATC	CCATCTCAGA	TCAAATACTT	AACAGACTAA	ATGATTTGAA
AAAGCAAAAG	TTTACTGGCT	TGTGTGTGTT	AAAATGGAGG	TATGGTGGCT	TTGATATTAT	CTTCTTGTGG
TGGAGCTGAA	TTCACAAGAG	ATCGTTGCTG	AGCTCCTGCC	AGACCCACC	TGGAGGCCCC	AGTCACTCAG
GAGAGATCAG	GGTCTTTCAC	AATCAGGTTT	TACAAAATA	AACATCCCCC	AAACCACAGC	AGTGCCAGTT
TCCATGTCAG	AAACTTAGAT	CCAAATGACT	GACTCGCGTC	TCATTATCAT	GATGGAAAAG	CCCAGGCTTG
AGAAAGAAGC	CCGCTGCGGA	TTTACTCAAG	GCGATACTGA	CACAGGGTTT	GTGTTTTTCC	AACATGAGTT
TTGAGTTCTT	ACACGCTGTT	TGCTCTTTTT	GTGTGTTTTT	TCCCTGTTAG	GTGTTTTTGG	TGGTATAGGC
GATCCTGTTA	CCTGCCTTAA	GAGTGGAGCC	ATATGTCATC	CAGTCTTTTG	CCCTAGAAGG	TATAACAAA
TTGGCACCTG	TGGTCTCCCT	GGAACAAAAT	GCTGCAAAAA	GCCATGAGGA	GGCCAAGAAG	CTGCTGTGGC
TGATGCGGAT	TCAGAAAGGG	CTCCCTCATC	AGAGACGTGC	GACATGTAAA	CCAAATTAAA	CTATGGTGTC
CAAAGATACG	CAATCTTTAT	CCTAGTAATT	GTGTCATTG	GGTGATGTTG	GTTTGGGCAG	GCCATCTCTA
ATATCCTTGA	AACACCTTTT	TCTGTCTCC	AGGAAGGGGT	CAGGGCTGCC	ACAGCGGGGC	TGGAGTGC

(2) INFORMATION FOR SEQ ID NO:3012:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8365 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3012:

ATCCTTTAAG	TCAATGGACT	TTGCATCAGT	CACACCATCT	TTTGTACTTT	TGGACTTCCC	CAGCTATGTT
CAATAATTAC	TGTTCTTCCC	TTGGGCCCCA	TTGTAATGGC	TACAGCCTCG	ACAAAAAGTC	TACACTTTGA
AGCATTAAGG	CTCGGACATC	AGCACCAAAT	TTTACATCTT	TACCATCACT	TCAAGTGAGG	TGAGGAGCCA
GTAGCCTGGA	CACTGGTCTC	ATCTGGTGAA	AGACTGTGGG	TAATGGAAGC	ATTCTGTGG	GGTGCTGGCA
GGACATGTGC	ATGGCGAGGC	AGGTCATCAG	CAGCAAGTGA	GAGCTGCCTC	TTACTTTCTA	AAGGTGACAT
AGCAAATATA	CAAAAAAATA	TAAATAAATT	ATTAATTTAG	GTAGAGCACA	TAAAGGCTTT	ATTTCATATT
CCATTTCTCT	GTATGCTTTC	TTCAACAGGA	AGAAATAGTT	TTAGTGTGAG	GAATGAATGA	GTCTGCCCCCT
CAATTCCAGC	CTGCTCAACA	CACAAGGAAA	CAAAGCCCTG	ACAATCAGAG	TGACTCCCTG	GTGACTAAGC
TCCAGTCCCT	GGATGCATAT	TTGTTTAGCA	GTTCTGACAG	CATTTGACCC	AGCCCTCTCT	CTGCATATCC
CATCAGAACC	TTCTTTTTTT	TTTTTTTCTT	TGAGACTGAG	TCTTGCTCTG	TCGGAAGCGA	CTCCTGTGCC
TCAGCCTCCC	AAATACCTGG	AATTATAGGC	GTAAGCCATC	ATGCCTGGCT	AATTTTGTGA	TTTTTCATGG
AGATGGGGTT	TTGCCATGTT	GGTCAAATTG	GTCTCACACT	CCTGACCTCA	TGTGATCCAC	CTGCCTCAGC
CTCCCAAAC	GCTGGGATGA	CAGGTGTAAG	CCACCATGCT	AGGCTCAGAA	ATTTCCTTTT	ATAAAAATGT
CATTAAGGAT	CTTGGCTGCA	CAATATCGTT	ACCAGCTTCC	TTTAAATCCA	CTTCTGGCCT	GCCAGGAATC
AGGTTCTTCA	GAACCTGACA	TTTTAAATGA	AGAGGTCAGG	CAGTTCATGA	GGAAAGCCTC	ATTGTCCCCA
TGTCTCTGTC	ACTGCTGCAC	CCCTGAGACA	TCACAGACAT	GGACACTGGG	GCCTGCTTGT	TTCTCAAAC
GCCCTTAGAT	CGAAAGAGGG	AGGAACCAGG	ATGAATGCCA	CTCATTTTCC	CAAGAAAGGC	CCTCTCCTGA
GTGCCCCGGA	TGGGGCTCTG	TCCATTGCCT	GGGGCCGCCA	ATTGCTACTC	TGGGTTACGG	AGGAAGGACA
GGGTCTTGAG	AGACACCAGA	GACCTCACAC	AGCCCTGAAA	ACATGGGGCT	CCTTCATAAG	TGTTTCCCAT
CACCAACAGG	GAGACCACGT	GGAGGCCTTG	CAGCCCCACT	CGGTGCTTCT	CCACCAAATC	CCAAGGGCAG
TGACGCTGAC	GTCTGTGGAA	AGCAGAGAAA	GCCCTGGCTC	CCAAAGCCCT	GAAGTCCCTG	TGGAGCTGAC
ATTCCCTGAG	TGACGCTGTG	AATGGAAGGA	ACTCAAGTGC	GGGTGGTAGG	CCACCTCCTG	GGCCAGGCCT
GGGTGAACTC	TGAGGGGACA	CATGTAGTCA	CAATCCCATC	CTCCCATTTCT	CCTTCTCAGA	GGAAGGAAGT
GGGCATCCAT	CTGCCTCATC	TCTCTCCCGT	GGGGAAGATG	GGGAGTTTCA	GGGGAACTTT	CACATAAATT
TCACCAGCTC	AGATCTCCTG	TGAGGATGGG	GCCCACCATG	CTCCCGGTGC	TGCCAGAGGC	CCTGAGCCCC
TCCAGGGGTC	CCTGGGTTTG	AGCCAGCCCT	GTATCATCCC	CAGGAGCTGA	ATGTCAGAGC	AATGGATAGA
ATTAGATGGA	AAGAGCTCTC	AATTTGACCT	GAGACTGTCC	CCAGATACTC	AGGAAAAACA	GGACGTCGCA
CAGAGTGGGC	AGCAGGTGAG	TGGCAGGTTA	TAGGTCTCTA	GTTTGAGTTT	GTTCTCACGT	GAGACAGACC
CAGCCCCCTCA	CTCCATTAC	ACACTGGGTT	TTAAATGGTG	CAAGATAGGA	GCAATTTTCT	GGTCCCAAGA
GCAGGAGGAA	GGGATTTTCT	GGGGTTTCTT	GAGTCCAGAT	TTGCATAAGA	TCTCCTGAGT	GTGCATTGTT
CTTTGAGGAC	CATTCTCTGA	CTCACCAGGT	AAGTGGCTGA	ATTCTAACCT	CTGTAATGAG	CATTGCACCC
AATACCAGTT	CTGAACCTTA	CCTGGTGACC	AGGGACCAGG	ACCTTTATAA	GGTGGAAGGC	TGATGTCCCT
CCCCAGACTC	AGCTCCTGGT	GAAGCTCCCA	GCCATCAGCC	ATGAGGGTCT	TGTATCTCCT	CTTCTCGTTC
CTCTTCATAT	TCCTGATGCC	TCTTCCAGGT	GAGATGGGCC	AGGGAAATAG	GAGGGTTGGC	CAAATGGAAG
AATGGCGTAG	AAGTTCTCTG	TCTCCTCTCA	TTCCCTCCCA	CCTATCTCTC	CCTCATCCCT	CTCTCTCCTT
CCTCTCTCTG	TGTGTCCCTT	CCATCCTTTT	CTCCTGCTTC	TCTCTCTTCT	TCCCTCTCTC	TCTTTTTTCT
GTCTTTCTTT	TTCTCTCTCT	CCTAGAGCAT	GTCTTTCTTT	CTTTCTCTTT	CCTTTCTTCT	ACCCACACTT
TTAGACTGAA	TGCCCTATTT	AATTGAACAA	AGCATTGCTT	CCTTCAATAG	AAAAGGAGTT	TGAGAACCCA
ATGGACACCT	CACTCGTTCT	TCTAAGCCAA	TATGAAGGAG	CCCAGTAGCT	TGTAAATATC	ATCTCTTCAC
TGCTTTCCAT	GCTACAACCT	CTGAGACTAT	GGTTGAAACC	TGTTAGGTGA	CTTTTTAAAT	AAAAGGCAGA
AATTTTGATT	TTATCTAAAG	AAAGTAGTAT	AGAATGTGAT	TTTCTAAATT	TTTATATTTA	AAGGGTAGAT
ACTGCAACCT	AGAGAAATCC	AGATAATCTT	AAGGCCACAG	CTATACTGTG	AGAACTACTG	CAGCAAGACA
CTCTGCCTCC	AGGACTTTTC	TGATCAGAGG	CCCTGAGAAC	AGTCCCCTGC	ACTAGGCCAC	TGCAGGTTCA
CAGGACAGGG	TACAGCCCAT	TGAAACCTAC	TTTTAAACCT	GGATGCCCTAA	CCTTCATTTT	CTCCTTGATA
TTATGAAAAT	AAAATAAAAA	CCATGAAAGG	ATAAAAGAGG	GAGAGTGGA	GGGAAGGATG	GAGAAAGGGA
AAAAGAAAAT	TTGAGAGTAA	ATCCTAAAAC	AATTAATCTA	ATAGATATCA	TCTTGTGAAA	TCCTCATTTT
ACCAATCTTA	TTTATGAGTC	CTGGGTTTTG	TGAGAACAAT	GGGGTTCTGA	GAGGCACCAG	AGACCTCATG
TTTTCCAAAA	CCTAGAACAG	TATAATGAAG	GAAGGCGGGG	AGGCAGGGAG	GCAGGGAGGC	AGGGAGGCAG

GGAGGCGGGC	AGGTGGGGAG	GGAGGGACGG	AAGGAGGGAG	GGAGGGAGGG	AGGGAGGGAG	GGAGGGATAA
AAAAAGAAGA	ATGAGGTTGA	AACCAGGACT	TAGATATTAG	AAACAAGCCA	TTACAAAATT	TATTTCTATG
GTTAATTGTG	GTTTTCAACT	GTAAGTTACT	TGGTGTTAAT	TTCTATTAA	ACAATTTTCAG	TAAGTTGCAT
CTTTTATACC	CATCTCAGGT	CAAATACTTA	ACAGACTAAA	TGATTTGAAA	AAGCAAAAGT	TTACTGGCTT
GTGTGTGTTA	AAATGGAGGT	ATGGTGGCTT	TGATATTATC	TTCTTGTTGGT	GGAGCTGAAT	TCACAAGAGA
TCGTTGCTGA	GCTCCTACCA	GACCCACCT	GGAGGCCCA	GTCACCTCAGG	AGAGATCAGG	GTCTTTCACA
ATCAGGTTCT	ACAAAAATAA	ACATCCCCC	AACCACAGCA	GTGCCAGTTT	CCATGTCAGA	AACCTTAGATC
CAAATGACTG	ACTCGCGTCT	CATTATCATG	ATGGAAGGC	CCAGGCTTGA	GAAAGAAGCC	CGCTGCGGAT
TTACTCAAGG	CGATACTGAC	ACAGGGTTTG	TGTTTTTCCA	ACATGAGTTT	TGAGTTCTTA	CACGCTGTTT
GCTCTTTTTG	TGTGTTTTTT	CCCTGTTAGG	TGTTTTTGGT	GGTATAGGCG	ATCCTGTTAC	CTGCCTTAAG
AGTGGAGCCA	TATGTCATCC	AGTCTTTTGC	CCTAGAAGGT	ATAAACAAAT	TGGCACCTGT	GGTCTCCCTG
GAACAAAATG	CTGCAAAAAG	CCATGAGGAG	GCCAAGAAGC	TGCTGTGGCT	GATGCGGATT	CAGAAAGGGC
TCCCTCATCA	GAGACGTGCG	ACATGTAAAC	CAAATTAAAC	TATGGTGTCC	AAAGATACGC	AATCTTTATC
CTAGTAATTG	TGGTCATTGG	GTGATGTTGG	TTTGGGCAGG	CCATCTCTAA	TATCCTTGAA	ACACCTTTTT
CTGCTCTCCA	GGAAGGGGTC	AGGGCTGCCA	CAGCGGGGCT	TGGAGTGCTT	TCCAGGGTCA	CAGGCATCTG
TATTCCTTGG	ATTCTTTGAC	CTTCCCCATT	TATTCCTTGG	ATTTTCTTAA	AACGTGTGCT	TGCTCTCTCC
TGCATCCTCC	CCTTGCAATG	CCTCACCTAC	CCCACATCTT	CCCTAAAAAA	AGCAAGCCCA	ACTCAAAGAC
CAGTTCCTCT	ATGGAATCAT	AGTGGATCTG	CCAAGGGAGG	GGATGCCCAG	TCCTCTGTTC	TTCAACAAGAC
TCCCTTCTTC	TGGCTAAGGT	TTCTTATGCA	ATTAT GAATTCCTG	TAAGCCCTGT	TACAGGGGCT	GCACCCAGAC
TACAACCTGA	CCTGTGTCCA	AGGCGGGCAA	CTCAACCCTT	AGATATTGAA	TGGGTCCCAT	GGCACCAATG
CTTAAACACC	AGCAGCCCTC	ACAACCACAG	ATCGTGTTTT	AAGGATGAGG	AGGTAGTTCT	CTGGATGCAC
AGGCTTCAAT	CCAAATGGGC	TCATGACGCC	GCAGCACACA	CCCAGTCTGC	AGCCTGAAGA	GTTGGAGCAT
TGCATTACAC	GAAAGCATCC	AGACATGATC	ATGGGCTCAG	GGATACACCT	GTTCTCCGAT	GTGTACCAGT
GAAGGATGGA	AACTCCTATG	CCTCCCAGAA	AGCACCCTC	AAGCTTTTGC	TGAATGCTTC	TCTGAAGGCC
CACAAGGCTG	AGAGGCTGTG	CAACACCAGC	AGTAAAGTGA	ATGCCCAGAC	TCCCACCTCC	TTTCTTGGGT
GGCCATCTGG	AAAGGCCACT	CCCACCCTGA	TGGCTAATGC	CTCAGACCAG	TTCTTGGCCC	AGATGATCCT
AGACAATTGT	TTAAGCTTAA	ACTGTTTATT	GGCCAAGCAA	ACAGGTGATA	GTACCTCTGG	GGAAACCACAT
GCCGCGTGTA	CATCCAGATC	TCAGGAGAAC	CCAAAAATGT	CTGTTCACAC	TAGCAACAGA	AGCCCAGGTA
GCACTCAGTC	TCACCTGGGT	GTTCTCCAAC	ATCCCAGCTC	AGCCAAATGG	CTTTCATTAG	TTTTTATGGT
TAGACCCAG	GTCCTCGGGA	CACTGCTTTA	GAAACACATT	CCAAATCCTC	CTCTGTGTGC	AGGTGGCATT
CCTATCCCAA	TCTCTTTGCA	GGGCGTATAC	TGTGATACGC	AGCCAGGCTG	TCCCAGAGGC	CTTAAATATT
CCCTTGGTGC	AGGTAGTTCA	GCTTAGCCAC	AGCCAATGCA	TCACAGGGTC	AACTGTGTTA	GGAGCCATTG
AGAATCCATA	GTTGGTTGCT	GCCTGGGCCT	GGCCAGGGCT	GACCAAGGTA	GATGAGAGGT	TCCTCTGTGG
AGTTCTACTT	TAACCTCACC	TTCCCACCAA	ATTTCTCAAC	TGTCCTTGCC	ACCACAATTA	TTTAATGGAC
CCAACAGAAA	GTAACCCCGG	AAATTAGGAC	ACCTCATCCC	AAAAGACCTT	TAAATAGGGG	AAGTCCACTT
GTGCACGGCT	GCTCCTTGCT	ATAGAAGACC	TGGGACAGAG	GACTGCTGTC	TGCCCTCTCT	TGTCACCTCG
CCTAGCTAGA	GGATCTGTAA	GTAATAACAA	ACTTAAACTT	TACACTGAGT	TTTCATCATT	GAAGCTATGC
CTCCAATCTG	ACCTCTGACT	GTGGGGCCGC	CCCAGAGGGA	CCCAGCGGGT	GAATCCCTGC	TAGGAACGTC
TGTCCGGAAC	TCTGGTGACT	GCTGGGGACG	ATGGCTTCCA	GCTAACTTAA	TAGAGAAACT	CAAGCAGTTT
CCTTCTAAAT	ACACATGTCA	CATGTCCTGG	TTGACATGTC	CAGTAAGAAG	ACTATCACAG	GTCTTTGGAA
CATTCTTTTG	AGAGAAACCT	ATTTAGGTCC	TTGGTCTGTT	TTTCAATCAG	GTTGTTTGAT	TTTTGCTATT
GAGTTGTTGG	AATTCCTTAT	GTATTCAGAT	ATTTGCCCTT	TCTGCCATGT	AGGTTTTGCA	AATATTTTCT
CTCATTTTCT	GGGTATCTT	TTCACTCGGT	TGATTGTTTC	CTTTGCTGTG	CAGATGCTTT	AGCGTTAAAT
GAAGCCACAC	TTGTCTATTT	TCCCTTTTAT	TGCCCTGTGCC	TTTGGTGTCA	TAGCCAAGAA	ATCATTACCT
ACATCAATGT	CAAAAGCTTT	ATCCTTCTAT	ACACTTCTAG	TAGTTTATGG	TTTCAGTTGT	TACATTTAGG
TTTTCAATTC	ATTCTGAGTT	GATGTTCCCTA	CATGGTGTGA	GATAAAGATT	TAAATACATA	CATATATAAA
ATCATGAGGT	AGTGTAACCT	ATAAATATAC	AATTGTTAAT	TGTTACTCAA	GTCTAAGTAG	AGGTGGAAT
AATAAACTTT	CTTTTTTTTA	CTTAAACCAC	TCTGTGTCAC	TGAGCTGATT	TCACCTTTAG	CCTGATAAAA
TCATTGTCCT	CTCCACCCTG	ATTCTTACAG	GAGACTACTC	ACCCCATAAC	CTCAAAAACC	TCTTCATGAG
GATGGTAAGT	CACCTGAATC	CTGAAGTGAA	TTACTCGCTA	TTCCATTGGA	ACTCATATAG	GACACCAGAA
TCTAGACCTC	CAGAGAACAG	CAGGACCCAT	CTTCAGAAAA	TAAGAAGCAT	TTGTTCCCTG	AGCCTGTTGA
ATCAAAGTGC	AATTTCTATT	CTTTTTGGAA	TGTTAAAAAG	TGAATCATAA	TATTTAAGCA	GGTGAACCCA

CGAGTAACAT	AGCAGGGTCT	TTCTTGTCAT	TATTAGCTCC	AACCTAGCAC	AGACATTAAA	GGTACAGATG
TATACTAGCA	TGAAACTGGG	AGAACAGGAG	CATTTCGAGCA	ACCTTGAGAC	CAATGGGCCT	CTCTTATAAA
ATGCACACCT	CCTCTCACTG	AGATTGAGGA	AGGTTTCTTG	TCTCCGAGCC	TTCTCCCAGT	AGAGCTATAA
ATCCAGGCTG	GCTCCTCCCT	CCCCACACAG	CTGCTCCTGC	TCTCCCTCCT	CCAGGTGACC	CCAGCCATGA
GGACCCTCGC	CATCCTTGCT	GCCATTCTCC	TGGTGGCCCT	GCAGGCCCAG	GCTGAGCCAC	TCCAGGCAAG
AGCTGATGAG	GTTGCTGCAG	CCCCGAGCA	GATTGCAGCG	GACATCCCAG	AAGTGTTGT	TTCCCTTGCA
TGGGACGAAA	GCTTGGCTCC	AAAGCATCCA	GGTGAGAGAG	GCAGGCATGC	AGAGCTGCTA	AGTCTAGAGG
GAAGGACGGG	AGAGAGGTTT	CAGAGTTGGG	TCTCAGCAGT	CTATGTCACT	GAGGTGGCTT	CACTTAGAAT
CTCTGGGCAT	TGATTTTCTC	ATCTAGAAAT	TGAACAGAGA	GCCAAATAAA	CCTGAGAAAC	TTTATTTCTC
CAAAGACTTG	ATTCCAAGAA	ACATCTGTGA	AATTCATAA	GTTTAAGATA	TGAAGAGACA	GACTAGTTAT
TTCTGGATCT	AAACAAGTAG	ACTTAGTTGT	AAAGAGAAACA	TTTTACTCTA	TCTACAGAAG	AGCTTTTAAA
AACTGCAGCC	AAGCCTGAGG	GTAAGTTCAG	GTGTGTGTGT	GATGGGGCAG	GAATGCAAAA	ATGAGAGCAA
AGGAGAATGA	GTCTCAAATT	CTGTGTGACA	AGCACTGCTC	TGCGTGTTTA	TTCTATCGA	CTGAGGTTGT
TCGTGCTACC	GGCTGCAATG	CAGCCAGCAT	CACCTGTCAG	CTAGCATGTG	ACTTCCCCGA	GATTCTTTTT
CTTACCCACT	GCTAACTCCA	TACTCAATTT	CTCATGCTCT	CCCTGTCCCA	GGCTCAAGGA	AAAACATGGA
CTGCTATTGC	AGAATACCAG	CGTGCAATTG	AGGAGAACGT	CGCTATGGAA	CCTGCATCTA	CCAGGGAAGA
CTCTGGGCAT	TCTGCTGCTG	AGCTTGACAG	AAAAGAAAAA	TGAGCTCAAA	ATTTGCTTTG	AGAGCTACAG
GGAAATTGCTA	TTACTCCTGT	ACCTTCTGCT	CAATTTCCCT	TCCTCATCTC	AAATAAATGC	CTTGTTACAA
GATTTCTGTG	TTCCACCTC	TTAATGTGT	GATATGTGTC	TGTGTCAAGA	CACTTGGGAT	ACACGTACCA

AAACGCAAAA TCAATTTTT GAACAATATA

(2) INFORMATION FOR SEQ ID NO:3013:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 644 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3013:

CGCTGCBBTC	TGCTCCGGGG	CTGCBGCBBC	CTCBTCBGCTC	TTGCTTGGBTG	GCTCBGCCTGG	GCCTGCBGGG
CCBCCBGBGB	BTGGCBGBBG	GBTGGCBGGG	TCCTCBTGGC	TGGGGTCBCCT	GGBGBGGGB	GBGCBGGGGG
TCCTCBTGGC	TGGGGTCCCT	CTCTCCCGTC	CT CCTACCTTGC	TATAGAAGAC	CTGGGACAGA	GGACTGCTGT
CTGCCCTCTC	TGGTCACCTT	GCCTAGCTAG	AGGATCTGTG	ACCCAGCCA	TGAGGACCTT	CGCCATCCTT
GCTGCCATTTC	TCCTGGTGGC	CCTGCAGGCC	CAGGCTGAGC	CACTCCAGGC	AAGAGCTGAT	GAGGTTGCTG
CAGCCCCGGA	GCAGATTGCA	GCGGACATCC	CAGAACTGGT	TGTTTCCCTT	GCATGGGACG	AAAGCTTGGC
TCCAAAGCAT	CCAGGCTCAA	GGAAAAACAT	GGACTGCTAT	TGCAGAATAC	CAGCGTGCAT	TGCAGGAGAA
CGTCGCTATG	GAACCTGCAT	CTACCAGGGA	AGACTCTGGG	CATTCTGCTG	CTGAGCTTGC	AGAAAAAGAA

AAATGAGCTC AAAATTTGCT TTGAGAGCTA CAGGGAATTG CTATTACTCC TGTACCTTCT GCTCAATTTT CTTT

(2) INFORMATION FOR SEQ ID NO:3014:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5036 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3014:

GCCACCATGG	AAACCCTTTG	CCTCAGGGCA	TCCTTTTGGC	TGGCACTGGT	TGGATGTGTA	ATCAGTGATA
ATCCTGAGAG	ATACAGCACA	AATCTAAGCA	ATCATGTGGA	TGATTTTACC	ACTTTTCGTG	GCACAGAGCT
CAGCTTCCTG	GTTACCACTC	ATCAACCCAC	TAATTTGGTC	CTACCCAGCA	ATGGCTCAAT	GCACAACATAT
TGCCCCACAGC	AGACTAAAAT	TACTTCAGCT	TTCAAATACA	TTAACACTGT	GATATCTTGT	ACTATTTTCA
TCGTGGGAAT	GGTGGGGAAT	GCAACTCTGC	TCAGGATCAT	TTACCAGAAC	AAATGTATGA	GGAATGGCCC
CAACGCGCTG	ATAGCCAGTC	TTGCCCTTGG	AGACCTTATC	TATGTGGTCA	TTGATCTCCC	TATCAATGTA
TGGCTGGGCG	CTGGCCTTTT	GATCACAATG	ACTTTGGCGT	ATTTCTTTGC	AAGCTGTTCC	CCTTTTGTGA
GAAGTCCTCG	GTGGGGATCA	CCGTCTCAA	CCTCTGCGCT	CTTAGTGTG	ACAGGTACAG	AGCAGTTGCC
TCCTGGAGTC	GTGTTTCAGG	AATTGGGATT	CCTTTGGTAA	CTGCCATTGA	AATTGCCTCC	ATCTGGATCC

TGTCCTTTAT	CCTGGCCATT	CCTGAAGCGA	TTGGCTTCGT	CATGGTACCC	TTTGAATATA	GGGGTGGACA
GCATAAAACC	TGTATGCTCA	ATGCCACATC	AAAATTCATG	GAGTTCTACC	AAGATGTAAA	GGACTGGTGG
CTCTTCGGGT	TCTATTTCTG	TATGCCCTTG	GTGTGCACTG	CGATCTTCTA	CACCCCTCATG	ACTGGTGAGA
TGTTGAACAG	AAGGAATGGC	AGCTTGAGAA	TTGCCCTCAG	TGAACATCTT	AAGCAGCGTC	GAGAAGTGGC
AAAAACAGTT	TTCTGCTTGG	TTGTAATTTT	TGCTCTTTGC	TGGTTCCCTC	TTCAATTTAAG	CCGTATATTG
AAGAAAAC TG	TGTATAACGA	GATGGACAAG	AACCGATGTG	AATTAAGTTAG	TTTCTTACTG	CTCATGGATT
ACATCGGTAT	TAAC TTGGCA	ACCATGAATT	CATGTATAAA	CCCCATAGCT	CTGTATTTTG	TGAGCAAGAA
ATTTAAAAAT	TGTTTCCAGT	CATGCCTCTG	CTGCTGCTGT	TACCAGTCCA	AAAGTCTGAT	GACCTCGGTC
CCCATGAACG	GAACAAGCAT	CCAGTGGAAG	AACCACGATC	AAAACAACCA	CAACACAGAC	CGGAGCAGCC
ATAAGGACAG	CATGAACTGA	CCACCCTTAG	AAGCACTCCT	GAATTCGGGA	AAAAGTGAAG	GTGTAAGAGC
AGCACAAAGT	CAATAAGAGA	TATTTCCCTCA	AATTTGCCTC	AAGATGGAAA	CCCTTTGCCT	CAGGGCATCC
TTTGGGCTGG	CACTGGTTGG	ATGTGTAATC	AGTGATAATC	CTGAGAGATA	CAGCACAAAT	CTAAGCAATC
ATGTGGATGA	TTTCACCACT	TTTCGTGGCA	CAGAGCTCAG	CTTCCTGGTT	ACCACTCATC	AACCCACTAA
TTTGGTCTTA	CCCAGCAATG	GCTCAATGCA	CAACTATTGC	CCACAGCAGA	CTAAAATTAC	TTCAGCTTTC
AAATACATTA	ACACTGTGAT	ATCTTGTAAT	ATTTTCATCG	TGGGAATGGT	GGGGAATGCA	ACTCTGCTCA
GGATCATTTA	CCAGAACAAA	TGTATGAGGA	ATGGCCCCAA	CGCGCTGATA	GCCAGCTCTG	CCCTTGGAGA
CCTTATCTAT	GTGGTCATTG	ATCTCCCTAT	CAATGTATTT	AAGCTGCTGG	CTGGGCGCTG	GCCTTTTGAT
CACAATGACT	TTGGCGTATT	TCTTTGCAAG	CTGTTCCCTT	TTTTCAGAAA	GTCCCTCGTG	GGGATCACCG
TCCTCAACCT	CTGCGCTCTT	AGTGTTGACA	GGTACAGAGC	AGTTGCCTCC	TGGAGTCGTG	TTCAGGGAAT
TGGGATTCCT	TTGGTAACTG	CCATTGAAAT	TGCTCTCCATC	TGGATCCTGT	CCTTTATCCT	GGCCATTCCT
GAAGCGATTG	GCTTCGTCAT	GGTACCCTTT	GAATATAGGG	GTGAACAGCA	TAAAACCTGT	ATGCTCAATG
CCACATCAAA	ATTTCATGGAG	TTCTACCAAG	ATGTAAAGGA	CTGGTGCTC	TTCCGGTTCT	ATTTCTGTAT
GCCCTTGGTG	TGCACTGCGA	TCTTCTACAC	CCTCATGACT	TGTGAGATGT	TGAACAGAAG	GAATGGCAGC
TTGAGAATTG	CCCTCAGTGA	ACATCTTAAG	CAGCGTCGAG	AAGTGGCAAA	AACAGTTTTTC	TGCTTGGTTG
TAATTTTTGC	TCTTTGCTGG	TTCCCTCTTC	ATTTAAGCCG	TATATTGAAG	AAAAGTGTGT	ATAACGAGAT
GGACAAGAAC	CGATGTGAAT	TACTTAGTTT	CTTACTGCTC	ATGGATTACA	TCGGTATTAA	CTTGGCAACC
ATGAATTCAT	GTATAAACCC	CATAGCTCTG	TATTTTGTTG	GCAAGAAATT	TAAAAATTGT	TTCCAGTCAT
GCCTCTGCTG	CTGCTGTTAC	CAGTCCAAAA	GTCTGATGAC	CTCGGTCCCC	ATGAACGGAA	CAAGCATCCA
GTGAAGAAG	CACGATCAAA	ACAACCACAA	CACAGACCGG	AGCAGCCATA	AGGACAGCAT	GAAGTGACCA
CCCTTAGAAG	CACTCCTCGG	TACTCCATA	ATCCTCTCGG	AGAAAAAAT	CACAAGGCAA	CTGTGAGTCC
GGGAATCTCT	TCTCTGATCC	TTCTTCCTTA	ATTCACTCCC	ACACCCAAGA	AGAAATGCCT	TCCAAAACCG
CAAGGGTAGA	CTGGTTTATC	CACCCACAAC	ATCTACGAAT	CGTACTTCTT	TAATTGATCT	AATTTACATA
TTCTGCGTGT	TGTATTCAAG	ACTAAAAAAT	GGTGGGAGCT	GGGGGAGAAT	GAAGACTGTT	AAATGAAACC
AGAAGGATAT	TTACTACTTT	TGCATGAAAA	TAGAGCTTTC	AAGTACATGG	CTAGCTTTTA	TGGCAGTTCT
GGTGAATGTT	CAATGGGAAC	TGGTCACCAT	GAACTTTAG	AGATTAACGA	CAAGATTTTC	TACTTTTTTT
AAGTGATTTT	TTTGTCTTTC	AGCCAAACAC	AATATGGGCT	CAAGTCACTT	TTATTTGAAA	TGTCATTTGG
TGCCAGTATC	CCGAATTC	GAATTCGGGA	AAAAGTGAAG	GTGTAAGAGC	AGCACAAAGT	CAATAAGAGA
AATTTGCCTC	AAGATGGAAA	CCCTTTGCCT	CAGGGCATCC	TTTTGGCTGG	CACTGGTTGG	TATTTCCCTCA
AGTGATAATC	CTGAGAGATA	CAGCACAAAT	CTAAGCAATC	ATGTGGATGA	TTTCACCACT	TTTCGTGGCA
CAGAGCTCAG	CTTCCTGGTT	ACCACTCATC	AACCCACTAA	TTTGGTCCTA	CCCAGCAATG	GCTCAATGCA
CAACTATTGC	CCACAGCAGA	CTAAAATTAC	TTCAGCTTTC	AAATACATTA	ACACTGTGAT	ATCTTGTAAT
ATTTTCATCG	TGGGAATGGT	GGGGAATGCA	ACTCTGCTCA	GGATCATTTA	CCAGAACAAA	TGTATGAGGA
ATGGCCCCAA	CGCGCTGATA	GCCAGTCTTG	CCCTTGGAGA	CCTTATCTAT	GTGGTCATTG	ATCTCCCTAT
CAATGTATTT	AAGCTGCTGG	CTGGGCGCTG	GCCTTTTGAT	CACAATGACT	TTGGCGTATT	TCTTTGCAAG
CTGTTCCCTC	TTTTGCAGAA	GTCCCTCGTG	GGGATCACCG	TCCTCAACCT	CTGCGCTCTT	AGTGTTGACA
GGTACAGAGC	AGTTGCCTCC	TGGAGTCGTG	TTCAGGGAAT	TGGGATTCCT	TTGGTAACTG	CCATTGAAAT
TGTCTCCATC	TGGATCCTGT	CCTTTATCCT	GGCCATTCCT	GAAGCGATTG	GCTTCGTCAT	GGTACCCCTT
GAATATAGGG	GTGAACAGCA	TAAAACCTGT	ATGCTCAATG	CCACATCAAA	ATTCATGGAG	TTCTACCAAG
ATGTAAAGGA	CTGGTGGCTC	TTCCGGTTCT	ATTTCTGTAT	GCCCTTGGTG	TGCACTGCGA	TCTTCTACAC
CCTCATGACT	TGTGAGATGT	TGAACAGAAG	GAATGGCAGC	TTGAGAATTG	CCCTCAGTGA	ACATCTTAAG
CAGCGTCGAG	AAGTGGCAAA	AACAGTTTTC	TGCTTGGTTG	TAATTTTTGC	TCTTTGCTGG	TTCCCTCTTC
ATTTAAGCCG	TATATTGAAG	AAAAGTGTGT	ATAACGAGAT	GGACAAGAAC	CGATGTGAAT	TACTTAGTTT

CTTACTGCTC ATGGATTACA TCGGTATTAA CTTGGCAACC ATGAATTCAT GTATAAACCC CATAGCTCTG
TATTTTGTGA GCAAGAAATT TAAAAATTGT TTCCAGTCAT GCCTCTGCTG CTGCTGTTAC CAGTCCAAAA
GTCTGATGAC CTCGGTCCCC ATGAACGGAA CAAGCATCCA GTGGAAGAAC CACGATCAAA ACAACCACAA
CACAGACCGG AGCAGCCATA AGGACAGCAT GAACTGACCA CCCTTAGAAG CACTCCTCGG TACTCCATA
ATCCTCTCGG AGAAAAAAT CACAAGGCAA CTGTGAGTCC GGAATCTCT TCTCTGATCC TTCTTCTTA
ATTCACTCCC ACACCCAAGA AGAAATGCTT TCCAAAACCG CAAGGGTAGA CTGGTTTATC CACCACAAC
ATCTACGAAT CGTACTTCTT TAATTGATCT AATTTACATA TTCTGCGTGT TGTATTCAGC ACTAAAAAT
GGTGGGAGCT GGGGGAGAAT GAAGACTGTT AAATGAAACC AGAAGGATAT TTACTACTTT TGCATGAAAA
TAGAGCTTTC AAGTACATGG CTAGCTTTTA TGGCAGTTCT GGTGAATGTT CAATGGGAAC TGGTCACCAT
GAAACTTTAG AGATTAACGA CAAGATTTTC TACTTTTTTT AAGTGATTTT TTTGTCCTTC AGCCAAACAC
AATATGGGCT CAAGTCACTT TTATTTGAAA TGTCATTGG TGCCAGTATC CCGAATTC

(2) INFORMATION FOR SEQ ID NO:3015:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9372 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3015:

GGBGCTGBTB CTGCBGATTT CBGBGGGBBG BBCCCTGBTB CTCBCCBGCT TCBGCTCTGG BGCBCBBBG
BBBGBGCBGC BGGGGGBBG BGGGBGCBG CBTCTTCCCB GGBGGGCTGC CTGBGCBBBT GCTGGTTTTT
CTTTCCBGTC TTGGGTTTTB TBBCTCCCBG BBGGCBGBG BGGGGCBGG CGTTTTCTTC TCTCGCTGGT
TTTTCTTTCC TGGCAGTGGG TGGGGGTGGG GGTGGGGTGG CTTCTTGTG CCTGGGGGTG TCCTCTTGCT
CTGGGCTTTT TCCCCCTTT CTTCTCTGTC TGTTTTCTG GGGCTCTCCT CTGTCTCTGT GTCCTTGCCC
TGGCCCTCTT CCCTCTCCTG TCTCCTGTCC CTGTGTTCCG CCGTCTTCC
CTCTCCTGAC CTCCTTTTCC TCCGCTGGGT GGGGCCCTGC CTGTTCTCTG CTCCCTGGCT TGGGGTTTCT
TCTGTGTGTC TTCTTCTCT GTTGGCTGGC TTTCTCCTTC TTTTGTCTTC CTGGGTGCCC CTTCTTCTT
TCTTGGGTCC TTGGTGCTG GGCTGGG TCCCAGTTAA TACATAATCA ATATGCAATT TATTAATACA TCTCTCCATG
TCCACTCCCC CTGTATCTTG CCATTCTTGA CCTGCATTTT CATCCTCCTT ACCTTCCCTA GAGGCCAACT
CATTTTCTTT GAAAAACCTG GCATTTCCCA GAAAAAAAG TGAAGGGCTG GGAGCTGTCC GTTGTCTCTGA
TTTGCTCCCT CTGCCCTTGC TTCCAAATGT GGTGGGAAAG AAGCACTATT GAAAAATCCC TAAACGCACC
CCTGCAGGGT TGGCTCTACC CTGTAGCCAT GGACACATGC TGTTGATACC ACCTGCCTCA TGAGTCTCAC
ATAATTTGCC CTTTCACT ATCTACCCCA TCAGCCTTAC CAAAACCATA CCTGCATCCT GGGCAGCATC
TGCCCTTCAA GAGACTAAGG AATCTCCTTG CAACCAAGAA TGACTAGACC AATGAGACAC CCTTTAAGGC
CCCAGCACAA TATAGAAATC CCACAATATG GTAATCCAG GTAAGGAGCTA TCAAGCCATT GCAGGACCAT
CTAGAATACA ACTAGAGTAT AGTTCCTTTC AATCCAGGAA CTATACTCTA ACAGCTTGGC TCACAGGAAC
CAGAAGTGAA GATGATGAGG ATCAGGGCTG AGCCTGTGAG CACCAGCTCC ACCACTGACA CCCACACAG
ATTAAACAAG CATCTTGTGG ACCCTGGGA TGGAAAGAAT AGTTGTTGCC TTATCAACCT CCCCACAGC
CCACACAGAA AAGATAAAAT CATCATGGCT ACAGTGTTAC AGAAGATGAT GACCCAAGGA GTAGGCCTGC
CTGAGTGAAT GCTGAGAGTG ATAATGGGAG CAGTAGCATC TCAGAGACTA CAGCAGAAAC CATCCACATA
AAGAGCTTTG CCAAACTTA TGATAAAGGG CACCCTCAGA GACTCTCCCT ACTTTAATAT TAGCCATTG
CAGAAATGGT GAGTGGAAG AGAAATCTTA GGAAGAACCC CTTAAAAAG CAAAATGCTT TTTAGGTTTG
TGCTGAAGAG CCTGGAAGG AAATAAGGAC ACACACGCTG AGAAATCTTC CTCCTGCCCC AACACTGGGA
TAATCTCAA GGATCTCTCC ATATCTCATT CTCCTGGATA CACTGTCCAC TCAGAAATAT TGTGCAGAGT
GCAGTAATTC AAAAGTGAGC TATTGTGTTA GGAGTGAAGG CAAGAGTATC GTAAAAATA TCAAAATTGA
AATGAATTCT CTAAATTGC TTTATAGATG TTTAATGTAA GCCAGCAGCT ATTAACGAT AAACCTTAAA
TTCGAGAAAA ACTTGGTCAT TCAGAACTA TAGAAACAGG CAGGACTTAT TGCGAGGGCA AACACAGAGT
GAGCTCCAGC CTGCTTCAGG AAAATCTGCC AGTGCCATGA AGGATGTACT CTGTCTGCTC CACTGACTA
CTGCTCAGTA TGAGCCCATG CCATCAGCTG TCCCTGACCC ACAGGAGTTC TTTAGAAGAG ACTGGTCAAC
AAAAGTTTCT AGGGTGT TTTT ATACCTGCCA ACTCGAGGGT TAAACAGCCT TGCATAGAAA TGCTCAATCA
AGAAAGACAC AGTCATTACT CAGAGAATAA TAAACAGCCT GGCAGCACAT GAATGAATAG AAAAAAGATG
TTACATGCAA AGCATGAAAT AACCAAATTC CATAACAGAT GTTAATCTGT AATGTGTTTA GGAGAAATTA
GAGGAAGTAT AAGATTTATT CTTTCATCAA AAAAATTATA GCCAATGAGG ATATATCTAT CAATTATCCA

TCAAGTGGTG	ATATGGCAGC	ACAAGGTAAA	ACACAAAGGA	ATAAAACCAA	CGTTTATTAA	GAACCAATCA
TGTGGCATT	CACATTGAGC	ATCATATTTA	ATTCTGAAAA	AAATCCTTGT	ACTGTATCAT	TCTTCATATT
TTATGGATGC	AGTAACTAAG	GCTGAGAACT	TTAAAAATTTT	TCCTAAGTTC	AGACACATAG	CTAAGTGGCA
GAACCAAGAT	TCAAACCTCAC	CCCATCTAAC	TGCAGAGCAA	ACTGCATGCC	TTAAATGTCA	AAGTGAATAC
TAGCACAGTT	AATACAATGT	TTGGAAACTC	AGAGAAGGAA	TGATCCCTCT	GCATTATAGT	TACTAAGGAA
TCATTGCCAT	TATTTAAATG	CCAGTGCTTC	TACATCAGGC	CCAAATTTTC	TGTCCTACTA	ACTGTGAATC
AAGACTTGAT	TCAACCTCTA	CTTGAGTATC	TGCCGCAATG	AGAAATCACT	TACCTCCACT	AACCACACAT
TTATTTTATA	ACAACAGATT	GTTAGTAAGT	CCTTTCTTAT	ACATACTCAA	CAGCTGCTTC	CCAAGATGCT
GTAGGATTAT	GTCTAGAGTC	AAACTAGCCA	GAAGCAATGT	CCAAAATACA	CCATAACACT	GTGCAGCAAA
GGTCTCTACTA	CCACTTGTTT	GGCCCAAACA	TTCTAGGCAG	CACTGGATAT	CTGAATCATC	AATTATTTCC
ACAAACACTG	ACCCCTCTAC	CAGTCACCCT	CACTAGAAGA	ATTAATTTCCA	CATGATAATA	GCTCCCTCAT
GTTACTCCCT	TCTAAGTCAA	ATTGTACACC	CCTTTATCTG	ATTAACAGAG	TCTAAGTCAC	ATGACCTAAA
TGCAAGAGAA	CTGGGAATGG	ACGTTTGTGG	ATTCTACCTT	AGTAAGGCAA	AGTTATCATT	GGGAATTCCT
CTAATACAGG	AAGGGTGTTT	CAGAGACATT	AAGGAGCCAT	ATAAATGGAA	AATGTCCACT	ACAATCCATC
ACTTGGTTGC	CCCACATCAA	CATTCACTCT	TTTGCCACAC	TTAAAGTTTC	CAAGAACAAA	AATTATCCCA
CTGAACATAA	TCTTTACTAT	CTTTTATATA	AAGGAAAATT	AGACTTGACT	CAGCAGAACT	GAAATAACCC
AGCTCTAACA	GTTACTGCTT	TAACTTCAA	GTACTGTGTC	TCTAGGTGAT	ACCTGCTCCA	ACAATAGTTT
GGTCACATTT	TCAATTTGAT	ATTCTCTAGT	CTCCCAACTT	GATAACTGTA	CCCTAAACCA	TAAAGTTCAC
TACCAACATG	CTATATATAA	AATAACCAAA	GGGGGAAGAA	GAAAGAGAAA	AAGGAAATCT	CTTAAAATAC
ACAGGTATAC	ATATGACAAA	GCAAAGAAGG	AAATGTGAGC	AGATAGTGCA	GTCCTCGTTT	CTGAAATTGG
TCCCTGACT	GGGGCTATAC	CTATTCCATT	TCCTCACCTT	CAGCCAGGCA	GGTGGAGCAA	AAACTTAAGT
CTTGGTGAT	CTGAATCTTG	ATGCTGTGGA	GCTGTCTTAC	TAGCCCCAGA	CTACCTGCCT	CTCAATTTCT
AATTATATCA	GTGAAAGCAA	ACAGCTTTGA	TTTGTTTAAG	CCTCTGATTT	TTTGGTCTAA	CTGATGTAAG
ACCACAAGGA	CAAGAGTTCT	CCAGCTCCGG	ATTCTCTTCT	GTTCTGTTAA	TGGTGAAATG	CCCAGAGAGAA
GAGTTGCCAA	CTTTGGCAAA	TAAAAAATAC	AGGATTCCAG	TTAAATTCOA	ATTTAGATAA	ACAACAATTT
TTTAGTATTA	GTGTGTCCCA	TTCAATATTT	GGACATACTT	AACTAAAAAA	TGATTTGTTG	TTCATCTGAA
ATACAAATTT	AACTGGGCAT	TCTGAATATT	CTCTGGCAAC	CCCCGAGAGA	GTGAAGAAAG	TGGTACAAGG
ACACTTAAGA	AGACCAGATT	TGAAAAGACA	TTACGGATGT	GTTTAAATGT	CTTATTCTAG	AGAGAGTTAG
AGCTGTAGGT	AGAACTTGGG	AAATTAAGTT	AAAAGCAGAC	ACAGAGACCT	GGCCAATATA	TACTAAGGAG
TGGATCACTC	TGGTCACAAG	CCCAACCTGA	GACCAAGGGC	ATAGTGAGAT	GATTTGGGAA	AGGCACCTAT
ACACTACTCA	TCCCCGTCTT	TGAACTAAAT	GCCTTATAAA	TCTCCAAGAG	AAATGACAGT	CCACCATGTG
GACTGCTTTT	TGTAAGTCCA	GGGAAAATAA	AAGCTATGTG	CTTGAAACCC	ACTTCTGATA	TTATAAGGTG
TGTGATCTTT	GTGATGTTAA	TGGGTCTGAG	TATCAATTTCT	ACAATTGTAA	AGTGACAGTA	ATGGTGTGTC
CCCAGGTTGT	TGTGGAAAGC	TTGATTCTTA	ATGCAACAGT	AGGAAACCCC	AGCCTCTCTG	GAGCAAACAC
CCTTCTACAT	CTTTACTTCC	CCTGCACATT	GGCAGGACTC	TATTCCTCTA	TTTCTCTCTA	GTGCTAGAGC
AGAAAGGGAC	CTTGATTGTA	TATCAGGAAA	ATCTATTTCT	GAACCATAAG	CTATGATAGC	TGATTTAAAA
AATTGACTAT	CATGACATGA	TAATGATCAT	AATGGTAATA	CATATTGATA	GGGTGCGGT	GAAAGTAATA
ATATATCTAA	GAGTTGTGAC	AATATATGAT	ACGCCTAGAC	TCTCAGAAAA	TGCTAATTCC	AATCCCAATT
GCTCTTTGCA	TAAAGTTCTG	TCCTAGGGTC	TGTTCTTTTC	CCACATCTAC	CCTCCTTGGA	TCTCTCTTCT
GCTCTTTTCA	TGTGGTTTCA	AGGAGGAGAG	AGATCCAGGT	CAATGTTTTC	CAAAATTACAA	GGAATTATCA
TTTAAATGGG	GAAGAAGCTC	AAGTTTTGAC	GTGTAGTGGA	ATTGGAGTGG	AGTGGAGTGG	AATGGAAACT
AACAGGAAGA	CACTGCACAT	GGTTAAGATA	AAGATTGTTT	CCTGAAACCT	TTAATTGTGT	CTTACATACT
CACACATACA	TATGTGCATG	CACTGGGACT	CTGCAATATG	CATTTCTGAC	TATGGAACAT	AGCCATAAAA
GTCTTTGCAC	TGAACGTTCA	GTGGGCCTTT	CACAAGCTGC	CCTAATTGGG	AAAGAAAAAC	ATGGTCCCTC
CATTTCTGTC	CCCCAACTCC	AGAAAAGTCA	CCATAGTTGA	GGGTACATCT	GAGAAGCCAG	CACTTGGGAG
TTCAGGGCTC	AAGTTCTTTT	CTAGAAAAAC	ACTGGGTGAT	TCTAGGGGAA	CTTCCGATCA	GAAACAGCCA
ATTCAGAGTG	AGAGAAGAAA	ACGTGACCAT	GCAGTTCCTG	TGGTTACCAG	CCTTGCCCCCT	CTCTTGCCCTT
CTGGGAGTTA	TAAAACCCAA	GACTGGAAAG	GAAAACCAGC	ATTTGCTCAG	GCAGCCTCTC	TGGGAAGATG
CTGCTTCTTC	CTCTCCCCCT	GCTGCTCTTT	CTCTTGCTGT	CCAGAGCTGA	AGCTGGTGAG	TATCAGGGTT
CTTCCCTCTG	AAATCTGCAG	TATCAGCTCC	TGAAACAAAG	ATGTTTAGTC	TGAAATAGCT	GACTCCTAAA
CAGGGTTCCA	AGATCTCTCT	TCAAGAGTCC	CACAGAGGAA	ATTTCCACTT	GGGATGTGTG	CCACCCCAAC
CCCACCCCA	CCCACTGCCA	TTCTCTACAG	CCTAGGACAC	CCCCAGGAAC	AAGGAATTTT	ACCTCAATTG

TAGAAAAGCC	CAGAGCAAGT	GGAAGGAAAA	GGGGTATCCC	CAGGAAAACA	GACATGTCCT	CTTAATCTTC
TGAGCATCAG	GGCTACCCAT	TACTTTGTGA	CTTTCTCACT	CTGTGACCAT	GCTCAAGAGC	TATGGAGAAA
TCTAAAACAG	GAACCTGGAC	AGTGGGTCCT	ACACAGAGAC	AGAGGAGAGT	GGGCCAGGGC	AAGGTGGGAG
TGGGAGAAGT	CTGAGATGAA	AACATCAGAA	TGGAGCAGAG	GCAAGAATGA	GATTTACCT	GGGAGGTTAT
GGGTGGGGAA	AGATACGAAA	TACAGGAGAC	AGGAGAGGGA	AGATGGGCGG	AACACAGGGT	GAGAATGAGA
TTCCAGGGAA	GCCTAGCTCA	GCTTTAACCC	AAATTTGTCCA	TTCATTGGAG	AGAGTATCTA	TGGCCGTGTT
CAAACCTGG	GGTGCTCTGT	TCCAGGGGAG	ATCATCGGGG	GCACAGAATG	CAAGCCACAT	TCCCGCCCCT
ACATGGCCTA	CCTGGAAATT	GTAACCTCCA	ACGGTCCCTC	AAAATTTTGT	GGTGGTTTCC	TTATAAGACG
GAACCTTTGTG	CTGACGGCTG	CTCATTGTGC	AGGAAGGTGA	GACAACAGGG	TCTATTTATC	TCCAAATGGG
AGATGAACAA	CCAGAGTAGC	ATCCAGGAAT	ACACCTGCAC	TGGGGACTGA	AGAGGGGGTC	CTGGGTCTTG
TCAAACCTTCA	GGAGAGGGAA	GACTTTGGGC	TGAAAGACTT	TAGTCTGTGT	TTGAATAGTT	CCTTGAGCCT
CAGTCACTGA	GCTAAGCTCC	CTTCGGAGGA	AAAGGAGGTC	CTGTCCGAAG	GTCCCTCTTG	TTGCAGTAGC
ACCCCTCACC	CCTACCCAAC	TCAAGACACA	CGGCTCACTT	TTCAGGGCCC	CACCCAGTCT	CAGGGCCACT
TCCTCTATGG	CCTTTTCAAG	AACACTGGCT	CTAGTTCTCA	GGGTCCTGAA	CCCATCATTT	TATGGGAGCA
GAGAACAGGT	CTACATAAGA	CCCCCACTTT	CCCGTTTAA	CTGATATCTC	CTGCTTCAGG	GGCTGGCCCT
CATGCAGGGT	TCCCTGAATT	AGGAAGTGTG	AACCCTGTCC	CCTGAGTCCCT	CCCTGGCCCTG	TTCAGTCCCC
AGCAATTCCA	GGGGTCGTAG	AAATGTGTCT	TGTTCTCTGA	GAAAGCTCTT	TCATGAGTTA	AGCCTGAGCC
CTCAAATGCC	ACAAGTGGCC	CATGAAAAGG	GAGATGGGTA	GAGTCCGGCN	ACCCAGTGAC	AGAGTTTAGT
CCTCTTTTCT	CAGAATGAGC	TCACCTCAGA	AGAAACCCCA	AGCCATCACT	GTGCGCTCCT	TTTCTTCTCT
TCTTCCTCAC	AGCAGGTCTA	TAACAGTCAC	CCTTGGAGCC	CATAACATAA	CAGAGGAAGA	AGACACATGG
CAGAAGCTTG	AGGTATATAA	GCAATTCCGT	CATCCAAAAT	ATAACACTTC	TACTCTTCAC	CACCATATCA
TGTTACTAAA	GGTGACAACA	CCTCTCTTCT	CCCTTTCCAC	TTCCCATTTCT	CCTAAGCTTC	TCCTTCAGGT
CCTCATTGCC	CTGAATTTTT	CTTAGGACTT	GGCTATAACA	TGAAGCTACT	CACCCTGTCC	CTCCCTGATC
ACCTCCAAC	GTCCAGAGCC	CATTTGAGG	ACTGACAGTC	CTTCATTCCC	TTACAGTTG	AAGGAGAAAG
CCAGCCTGAC	CCTGGCTGTG	GGGACACTCC	CCTTCCCATC	ACAATTCAAC	TTTGTCCCAC	CTGGGAGAAT
GTGCCGGGTG	GCTGGCTGGG	GAAGAACAGG	TGTGTTGAAG	CCGGGCTCAG	ACACTCTGCA	AGAGGTGAAG
CTGAGACTCA	TGGATCCCCA	GGCCTGCAGC	CACTTCAGAG	ACTTTGACCA	CAATCTTCAG	CTGTGTGTGG
GCAATCCCAG	GAAGACAAAA	TCTGCATTTA	AGGTGATCCT	CCAAC TAGGT	TTCTCTCCA	AAACTCACTG
TTCAGGGACC	TGAATGCTCT	TAGAAGGAGA	TGGGGTCAGC	AGGTGTGTCAG	TCAGGTGACA	GGGTGAGCAT
CACAGGAATT	GCTGTCTCTC	CGTGGTCCAA	GACAGCCTCT	GACCATCCAT	TCCAGTCTAC	TGCACTGGGG
GCATGGGGTG	ACTGTGGAGA	ATGTGGATGA	CGGTCCCAAG	AAAGGAAGAA	GGGGCATCAG	AACTAGATGT
ATAAGTGAGG	AGCTCCACCT	CCTGGGTCTG	ACTTTAGGTC	TCACTGTGAC	TCCAAGCTGG	CTGGCAGACA
GGAGTGAGG	ACTTCCCGGG	CTCACCTTCT	TCTCTCTCTC	CTCCCCCTAC	AGGGAGACTC	TGGGGGCCCT
CTTCTGTGTG	CTGGGGTGGC	CCAGGGCATC	GTATCCTATG	GACGGTCGGA	TGCAAAGCCC	CCTGCTGTCT
TCACCCGAAT	CTCCCATTA	CGGCCCTGGA	TCAACCAGAT	CCTGCAGGCA	AATTAATCTG	GGATCCTGAG
CCAGCCTGAA	GGGAAGCTGG	AACTGGACCT	TAGCAGCAAA	GTGTGTGCAA	CTCATTCTGG	TTCTACCTTT
GGTTCCCTCA	GCCACAACCC	TAAGCCTCCA	AGAGGCTCTC	TACAGGTAAC	AGAACTTTCA	ATAAACTTCA
GTGAAGACAC	AGCTTCTAGT	CGTGAGTGTG	TGTCCCTCTC	TGCTGCTCTC	TTCTCCTGCA	CATGTGACCT
GATTTCCAGC	CCAAGCACCA	AGGA ATCATCGGG	GCACAGAATC	CAAGCCACAT	TCCCGCCCCT	ACATGGCCTA
CCTGGAAATT	GTAACCTCCA	ACGGTCCCTC	AAAATTTTGT	GGTGGTTTCC	TTATAAGACG	GAACCTTGTG
CTGACGGCTG	CTCATGTGTG	AGGAAGGTCT	ATAACAGTCA	CCCTTGAGC	CCATAACATA	ACAGAGGAAG
AAGACACATG	GCAGAAGCTT	GAGGTTATAA	AGCAATTCCG	TCATCCAAAA	TATAACACTT	CTACTCTTCA
CCACGATATC	ATGTTACTAA	AGTTGAAGGA	GAAAGCCAGC	CTGACCCTGG	CTGTGGGGAC	ACTCCCTTTC
CCATCACAAT	TCAACTTTGT	CCCACCTGGG	AGAATGTGCC	GGGTGGCTGG	CTGGGGAAGA	ACAGGTGTGT
TGAAGCCGGG	CTCAGACACT	CTGCAAGAGG	TGAAGCTGAG	ACTCATGGAT	CCCCAGGCCT	GCAGCCACTT
CAGAGACTTT	GACCACAATC	TTCAGCTGTG	TGTGGGCAAT	CCCAGGAAGA	CAAAATCTGC	ATTTAAGGGA
GACTCTGGGG	GCCCTCTTCT	GTGTGCTGGG	GTGGCCAGG	GCATCGTATC	CTATGGACGG	TCGGATGCAA
AGCCCCCTGC	TGTCTTACC	CGAATCTCCC	ATTACCGGCC	CTGGATCAAC	CAGATCCTGC	AGGCAAATTA A

(2) INFORMATION FOR SEQ ID NO:3016:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3117 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3016:

CTGCCCCBGT	TTTTGBTCCT	CBCBTGCCGT	GGGGBGGBCB	BTGGCTGCCT	CCCCGGGGTT	TCTGCTGCTT
GCTGCTTCTT	TCCCGTCTCC	CTTCTTTCCC	GTCTCCTTTT	TGCCTCTTTG	GGTTCTTGTT	GTTCCTGGCC
TGCTTGGTGG	CGGCTTGTGC	GTTTCCTCTC	TCTTCTCTTG	GGTCTCCGCT	TCTCGTCCTG	CCTTTTCCTG
TCTCTGTGCG	GCCGTTCTCT	CTCCGGCGTC	CTCCTGCCCT	GTGCTGTTTG	CCTCGGGTGG	TGCGGGTCCC
GGTGCTCCCC	CGGCGGGCCG	GCTGGTTGCC	TGGGCCCTGTC	TGGTGGGGTG	TGGGGCCGCT	GGGTTGGGGG
TGTGGTGGGC	TCTTCTGTGG	CCTGTGGGGC	TGTTGGTGTG	TCTGTGGGCG	TGTGCTGGGT	CTTGGGGCTT
CCTCCCTTGT	GCTGGGTGCG	GCCTCCCCGC	CCCCCTTCTG	GGCCGGTGGC	CTGGCTCCTT	GTGGGCGCTT
CTGGCTCTTG	CCCTGTCCTT	CTTCGCCTCG	TGGCTGCTGG	GCTGCG	CATATGTATG	GGAATACTGT
TTATAAGGAA	TGAAATTATA	GGCCGGGCAT	TGTGGCTAAC	CCTTGTAAATC	CTAGCACTTT	GAGAGGCTGA
AGTGGGCAGA	TCACTTGAGC	TTCAGAGTTC	GAGACCAGCA	TGGACAACAT	GGTGAAACCC	AGTCTCTACC
AAAAACACAA	AAATATTAGC	TGGGTGTGGT	GGTGCAATGC	TGTAGTCCCA	GCTACTCAGG	AGGCTGAGGT
GGGAGGATCG	CTTGAGCCTG	GGAGGCAGAA	GTTGCAATGA	GCAGAGATCG	TGCCACTCCG	CTCCAGTCTT
GGTGACAGAA	TGAGACTCCA	TCTCAAAAAT	AAATAAATAA	ATAAATAAAA	TAAATGAAAT	GAAATTATAA
GAAATTACCA	CTTTTTCATG	TAAGAAGTGA	TCATTTCCAT	TATAAGGGAA	GGAATTTAAT	CCTACCTGCC
ATTCCACCAA	AGCTTACCTA	GTGCTAAAGG	ATGAGGTGTT	AGTAAGACCA	ACATCTCAGA	GGCCTCTCTG
TGCCAATAGC	CTTCCTTCCT	TTCCCTTCCA	AAAACCTCAA	GTGACTAGTT	CAGAGGCCTG	TCTGGAATAA
TGGCATCATC	TAATATCACT	GGCCTTCTGG	AACCTGGGCA	TTTTCCAGTG	TGTTCCATAC	TGTCAATATT
CCCCCAGCTT	CCTGGACTCC	TGTCACAAGC	TGGAAAAGTG	AGAGGATGGA	CAGGGATTAA	CCAGAGAGCT
CCCTGCTGAG	GAAAAAATCT	CCCAGATGCT	GAAAGTGAGG	CCATGTGGCT	TGGCCAAATA	AAACCTGGCT
CCGTGGTGCC	TCTGTCTTAG	CAGCCACCCT	GCTGATGAAC	TGCCACCTTG	GACTTGGGAC	CAGAAAGAGG
TGGGTTGGGT	GAAGAGGCAC	CACACAGAGT	GATGTAACAG	CAAGATCAGG	TCACCCACAG	GCCCTGGCAG
TCACAGTCAT	AAATTAGCTA	ACTGTACACA	AGCTGGGGAC	ACTCCCTTTG	GAAACCAAAA	AAAAAAAAAA
AAAAAAGAGA	CCTTTATGCA	AAAACAATC	TCTGGATGGC	ATGGGGTGAG	TATAAATACT	TCTTGGCTGC
CAGTGTGTTT	ATAACTTTGT	AGCGAGTCGA	AAACTGAGGC	TCCGGCCGCA	GAGAACTCAG	CCTCATTCCT
GCTTTAAAT	CTCTCGGCCA	CCTTTGATGA	GGGGACTGGG	CAGTTCCTAG	CAGTCCCGAA	GTTCTCAAGG
CACAGGTCTC	TTCTTGGTTT	GACTGTCTTT	ACCCCGGGGA	GGCAGTGCAG	CCAGCTGCAA	GGTGAGTTGC
CATATGTATG	GGAATACTGT	ATTTTCAGGCA	TTATAAGGAA	TGAAATTATA	GGCCGGGCAT	TGTGGCTAAC
CCTTGTAAATC	CTAGCACTTT	GAGAGGCTGA	AGTGGGCAGA	TCACTTGAGC	TTCAGAGTTC	GAGACCAGCA
TGGACAACAT	GGTGAAACCC	AGTCTCTACC	AAAAACACAA	AAATATTAGC	TGGGTGTGGT	GGTGCATGCC
TGTAGTCCCA	GCTACTCAGG	AGGCTGAGGT	GGGAGGATCG	CTTGAGCCTG	GGAGGCAGAA	GTTGCAATGA
GCAGAGATCG	TGCCACTCCG	CTCCAGTCTT	GGTGACAGAA	TGAGACTCCA	TCTCAAAAAT	AAATAAATAA
ATAAATAAAA	TAAATGAAAT	GAAATTATAA	GAAATTACCA	CTTTTTTCATG	TAAGAAGTGA	TCATTTCCAT
TATAAGGGAA	GGAATTTAAT	CCTACCTGCC	ATTCCACCAA	AGCTTACCTA	GTGCTAAAGG	ATGAGGTGTT
AGTAAGACCA	ACATCTCAGA	GGCCTCTCTG	TGCCAATAGC	CTTCCTTCCT	TTCCCTTCCA	AAAACCTCAA
GTGACTAGTT	CAGAGGCCTG	TCTGGAATAA	TGGCATCATC	TAATATCACT	GGCCTTCTGG	AACCTGGGCA
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AGAGGATGGA	CAGGGATTAA	CCAGAGAGCT	CCCTGCTGAG	GAAAAAATCT	CCCAGATGCT	GAAAGTGAGG
CCATGTGGCT	TGGCCAAATA	AAACCTGGCT	CCGTGGTGCC	TCTGTCTTAG	CAGCCACCCT	GCTGATGAAC
TGCCACCTTG	GACTTGGGAC	CAGAAAGAGG	TGGGTTGGGT	GAAGAGGCAC	CACACAGAGT	GATGTAACAG
CAAGATCAGG	TCACCCACAG	GCCCTGGCAG	TCACAGTCAT	AAATTAGCTA	ACTGTACACA	AGCTGGGGAC
ACTCCCTTTG	GAAACCAAAA	AAAAAAAAAA	AAAAAAGAGA	CCTTTTATGCA	AAAACAATC	TCTGGATGGC
ATGGGGTGAG	TATAAATACT	TCTTGGCTGC	CAGTGTGTTT	ATAACTTTGT	AGCGAGTCGA	AAACTGAGGC
TCCGGCCGCA	GAGAACTCAG	CCTCATTCCT	GCTTTAAAT	CTCTCGGCCA	CCTTTGATGA	GGGGACTGGG
CAGTTCTAGA	CAGTCCCGAA	GTTCTCAAGG	CACAGGTCTC	TTCTTGGTTT	GACTGTCTTT	ACCCCGGGGA
GGCAGTGCAG	CCAGCTGCAA	GGTGAGTTGC	C			

(2) INFORMATION FOR SEQ ID NO:3017:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8222 base pairs
(B) TYPE: nucleic acid

$$\frac{d^2}{dt^2} \left(\frac{\partial L}{\partial \dot{x}} \right) - \frac{\partial L}{\partial x} = 0$$

403254.1
73999/01905

GCCAGGCCAC	CTCTATGTTT	GCGGGGATGT	GCGCATGGCC	CGGGACGTGG	CCCACACCCCT	GAAGCAGCTG
GTGGCTGCCA	AGCTGAAATT	GAATGAGGAG	CAGGTCGAGG	ACTATTCTTT	TCAGCTCAAG	AGCCAGAAGC
GCTATCACGA	AGATATCTTC	GGTGCTGTAT	TTCCTTACGA	GGCGAAGAAG	GACAGGGTGG	CGGTGCAGCC
CAGCAGCCTG	GAGATGTCAG	CGCTCTGAGG	GCCTACAGGA	GGGGTTAAAG	CTGCCGGCAC	AGAACTTAAG
GATGGAGCCA	GCTCTGCATT	ATCTGAGGTC	ACAGGGCCTG	GGGAGATGGA	GGAAAGTGAT	ATCCCCCAGC
CTCAAGTCTT	ATTTCTCTCA	CGTTGCTCCC	CATCAAGCCC	TTTACTTGAC	CTCCTAACAA	GTAGCACCCCT
GGATTGATCG	GAGCCTCCTC	TCTCAAACCTG	GGGCCTCCCT	GGTCCCTTGG	AGACAAAATC	TTAAATGCCA
GGCCTGGCGA	GTGGGTGAAA	GATGGAACCT	GCTGCTGAGT	GCACCACTTC	AAGTGACCAC	CAGGAGGTGC
TATCGCACCA	CTGTGTATTT	AACTGCCTTG	TGTACAGTTA	TTTATGCCTC	TGTATTTAAA	AAACTAACAC
CCAGTCTGTT	CCCCATGGCC	ACTTGGGTCT	TCCCTGTATG	ATTCCTTGAT	GGAGATATTT	ACATGAATTG
CATTTTACTT	TAATC	GAATTCAC	TCTGCTGCCT	GCTCCAGCAG	ACGGACGCAC	AGTAACATGG
GAGCGTGGCC	CAGGAGCCTG	GGCCACCCCTG	CGGCCTGGGG	CTGGGGCTGG	GCCTTGGGCT	GTGCGGCAAG
CAGGGCCAG	CCACCCCGGC	CCCTGAGCCC	AGCCGGGCCC	CAGCATCCCT	ACTCCCACCA	GCGCCAGAAC
ACAGCCCCC	GAGCTCCCCG	CTAACCCAGC	CCCCAGAGGG	GCCCAGATT	CCTCGTGTGA	AGAACTGGGA
GGTGGGGAGC	ATCACCTATG	ACACCCCTCAG	CGCCCAGGCG	CAGCAGGATG	GGCCCTGCAC	CCCAAGACGC
TGCCTGGGCT	CCCTGGTATT	TCCACGGAAA	CTACAGGGCC	GGCCCTCCCC	CGGCCCCCGG	GCCCCCTGAGC
AGCTGCTGAG	TCAGGCCCGG	GACTTCATCA	ACCAGTACTA	CAGCTCCATT	AAGAGGAGCG	GCTCCCAGGC
CCACGAACAG	CGGCTTCAAG	AGGTGGAAGC	CGAGGTGGCA	GCCACAGGCA	CCTACCAGCT	TAGGGAGAGC
GAGCTGGTGT	TCGGGGCTAA	GCAGGCCTGG	CGCAACGCTC	CCCCTGCGT	GGGCCGGATC	GGGCGGGGA
AGCTGCAGGT	GTTTCGATGCC	CGGGACTGCA	GGTCTGCACA	GGAAATGTTT	ACCTACATCT	GCAACCACAT
CAAGTATGCC	ACCAACCGGG	GCAACCTTCG	CTCGGCCATC	ACAGTGTTC	CGCAGCGCTG	CCCTGGCCGA
GGAGACTTCC	GAATCTGGAA	CAGCCAGCTG	GTGCGCTACG	CGGGCTACCG	GCAGCAGGAC	GGCTCTGTGC
GGGGGGACCC	AGCCAACGTG	GAGATCACCG	AGCTCTGCAT	TCAGCACGGC	TGGACCCAG	GAAACGGTCG
CTTCGACGTG	CTGCCCCCTG	TGCTGCAGGC	CCCAGATGAG	CCCCCAGAAC	TCTTCCTTCT	GCCCCCGGAG
CTGGTCCTTG	AGGTGCCCTT	GGAGCACCCC	ACGCTGGAGT	GGTTTGCAGC	CCTGGGCCTG	CGCTGGTACG
CCCTCCCGGC	AGTGTCCAAC	ATGCTGCTGG	AAATTGGGGG	CCTGGAGTTC	CCCCCAGCCC	CCTTCAGTGG
CTGGTACATG	AGCACTGAGA	TCGGCACGAG	GAACCTGTGT	GACCCTCACC	GCTACAACAT	CCTGGAGGAT
GTGGCTGTCT	GCATGGACCT	GGATACCCGG	ACCACCTCGT	CCCTGTGGAA	AGACAAGGCA	GCAGTGGAAA
TCAACGTGGC	CGTGCTGCAC	AGTTACCAGC	TAGCCAAAGT	CACCATCGTG	GACCACCACG	CCGCCACGGC
CTCTTTCATG	AAGCACCTGG	AGAATGAGCA	GAAGGCCAGG	GGGGGCTGCC	CTGCAGACTG	GGCCTGGATC
GTGCCCCCCA	TCTCGGGCAG	CCTCACTCCT	GTTTTCCATC	AGGAGATGGT	CAACTATTTT	CTGTCCCCGG
CCTTCCGCTA	CCAGCCAGAC	CCCTGGAAGG	GGAGTGCCGC	CAAGGGCACC	GGCATCACCA	GGAAGAAGAC
CTTTAAAGAA	GTGGCCAACG	CCGTGAAGAT	CTCCGCCTCG	CTCATGGGCA	CGGTGATGGC	GAAGCGAGTG
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TCCGGAAGGC	TTTTGATCCC	CGGGTCCTGT	GTATGGATGA	GTATGACGTG	GTGTCCCTCG	AACACGAGAC
GCTGGTGTCT	GTGGTAACCA	GCACATTTGG	GAATGGGGAT	CCCCCGGAGA	ATGGAGAGAG	CTTTGCAGCT
GCCCTGATGG	AGATGTCCGG	CCCCTACAAC	AGCTCCCTC	GGCCGGAACA	GCACAAGAGT	TATAAGATCC
GCTTCAACAG	CATCTCCTGC	TCAGACCCAC	TGGTGTCTCT	TTGGCGGCGG	AAGAGGAAGG	AGTCCAGTAA
CACAGACAGT	GCAGGGGCC	TGGGCACCCCT	CAGGTTCTGT	GTGTTGCGGC	TCGGCTCCCG	GGCATACCCC
CACCTTCTGCG	CTTTTGCTCG	TGCCGTGGAC	ACACGGCTGG	AGGAACTGGG	CGGGGAGCGG	CTGCTGCAGC
TGGGCCAGGG	CGACGAGCTG	TGCGGCCAGG	AGGAGGCCTT	CCGAGGCTGG	GCCCAGGCTG	CCTTCCAGGC
CGCCTGTGAG	ACCTTCTGTG	TGGGAGAGGA	TGCCAAGGCC	GCCGCCCGAG	ACATCTTCAG	CCCCAAACGG
AGCTGGAAGC	GCCAGAGGTA	CCGGCTGAGC	GCCCAGGCCG	AGGGCCTGCA	GTTGCTGCCA	GGTCTGATCC
ACGTGCACAG	GCGGAAGATG	TTCCAGGCTA	CAATCCGCTC	AGTGGAAGAC	CTGCAAAGCA	GCAAGTCCAC
GAGGGCCACC	ATCCTGGTGC	GCCTGGACAC	CGGAGGCCAG	GAGGGGCTGC	AGTACCAGCC	GGGGGACCAC
ATAGGTGTCT	GCCCCGCCAA	CCGGCCCGGC	CTTGTGGAGG	CGCTGCTGAG	CCGCGTGGAG	GACCCGCCCG
CGCCCACTGA	GCCCCGTGCA	GTAGAGCAGC	TGGAGAAGGG	CAGCCCTGGT	GGCCCTCCCC	CCGGCTGGGT
GCGGGACCCC	CGGCTGCCCC	CGTGCACGCT	GCGCCAGGCT	CTCACCTTCT	TCCTGGACAT	CACCTCCCCA
CCCAGCCCTC	AGCTCTTTCG	GCTGCTCAGC	ACCTTGGCAG	AAGAGCCCAG	GGAACAGCAG	GAGCTGGAGG
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GGAGCAGTTC	CCGTGCGTGG	CGCTGCCTGC	CCCACCTGCTC	CTCACCAGC	TGCCTCTGCT	CCAGCCCCGG
TACTACTCAG	TCAGCTCGGC	ACCCAGCACC	CACCCAGGAG	AGATCCACCT	CACTGTAGCT	GTGCTGGCAT

ACAGGACTCA	GGATGGGCTG	GGCCCCCTGC	ACTATGGAGT	CTGCTCCACG	TGGCTAAGCC	AGCTCAAGCC
CGGAGACCCT	GTGCCCTGCT	TCATCCGGGG	GGCTCCCTCC	TTCCGGCTGC	CACCCGATCC	CAGCTTGCCC
TGCATCCTGG	TGGGTCCAGG	CACTGGCATT	GCCCCCTTCC	GGGGATTCTG	GCAGGAGCGG	CTGCATGACA
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TCTCTACCGC	GACGAGGTGC	AGAACGCCCA	GCAGCGCGGG	GTGTTTGGCC	GAGTCCTCAC	CGCCTTCTCC
CGGGAACCTG	ACAACCCCAA	GACCTACGTG	CAGGACATCC	TGAGGACGGA	GCTGGCTGCG	GAGGTGCACC
GCGTGCTGTG	CCTCGAGCGG	GGCCACATGT	TTGTCTGCGG	CGATGTTACC	ATGGCAACCA	ACGTCTTGCA
GACCGTGCAG	CGCATCCTGG	CGACGGAGGG	CGACATGGAG	CTGGACGAGG	CCGGCGACGT	CATCGGCGTG
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GCATACGCAC	CCAGAGCTTT	TCCTTGCAAG	AGCGTCAGTT	GCGGGGCGCA	GTGCCCTGGG	CGTTCGACCC
TCCCGGCTCA	GACACCAACA	GCCCCTGAGA	GCCGCTGGGC	TTTCCCTTCC	AGTTCCGGGA	GAGCGGCTGC
CCGACTCAGG	TCCGCCCAGC	CAGGATCAGC	CCCGCTCCTC	CCCTCTTGAG	GTGGTGCCCTT	CTCACATCTG
TCCAGAGGCT	GCAAGGATTC	AGCATTATTC	CTCCAGGAAG	GAGCAAAACG	CCTCTTTTCC	CTCTCTAGGC
CTGTTGCCTC	GGGCCTGGGT	CCGCCTTAAT	CTGGAAGGCC	CCTCCAGCA	GCGGTACCCC	AGGGCCTACT
GCCACCCGCT	TCCTGTTTCT	TAGTCCGAAT	GTTAGATTCC	TCTTGCCCTCT	CTCAGGAGTA	TCTTACCTGT
AAAGTCTAAT	CTCTAAATCA	AGTATTATT	ATTGAAGATT	TACCATAAGG	GACTGTGCCA	GATGTTAGGA
GAAGTACTAA	AGTGCCCTACC	CCAGCTC				

(2) INFORMATION FOR SEQ ID NO:3018:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 48330 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3018:

GGTGBCBTTG	BGCBTGTGCG	CGCGGTCCCG	TTBBGBGTGG	GCCCGCCAGC	CCAGCCACTC	CACTTGGGGG
CGGGTGGCCA	GCACGAACAG	CACCCAGAGG	AAGGGGGGCG	GCCCAGAAGG	GCAGCCCGCA	GGCCAGGATC
AGGTCTGCTG	CGGCCGGAGA	TAATGGCATT	CACCACGCGG	CGGCCAGCG	CACGCCGCGC	ATCCGGCCCCG
GGTTCTGACC	TGCAGCCCCC	GTCTCCTTGG	CATTCCCTGGG	CCCCAGTCAC	TCCTCTCCCT	GCCCCCCTTG
CTGGGGCAGG	GACGGGGTG	BCBTTGBGCB	TGTCGGCGCG	GTCCCGTTBB	GBGTGGGGCC	GCCAGCCCCAG
TGGGGGCGGG	TGGCCAGCAC	GAACAGCACC	CAGAGGAAGG	GGGGCGGCC	AGAAGGGCAG	CCCGCAGGCC
AGGATCAGGT	CTGCTGCGGC	CGGAGATAAT	GGCATTACCC	ACGCGGCGGC	CCAGCGCACG	CCGCGCATCC
GGCCCCGGTT	CTGACCTGCA	GCCCCGTCT	CCTTGGCATT	CCTGGGCCCC	AGTCACTCCT	CTCCCTGCCC
CCCTTGCTGG	GCCAGGGACG	GCCGTGTTGT	CBGTGGTGCT	GCCCCGTTGB	GGTBTGGCGC	TCCBCCBBTT
CCCTTTTCTC	CTTGTTTTC	GTTTCTCTTG	CCGTCTGTGG	TT CAGATTACAC	AACTGCAGGA	CTGGGCAGGG
AGCAGACAGT	GAGCAAACGC	CAGCAGGGCT	GCTGTGAATT	TGTGTAAGGA	TTGAGGGACA	GTGCTTTTTT
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AACACCGGAG	ACTAATTCCT	GCCCTGCCCA	ATTTTGCAGG	GAGCATGGCT	GTGAGGATGG	GGTGAATCA
CGCACAGCCA	AGGACTCCAA	AATCACAACA	GCATTACTGT	TCTTATTTGC	TGCCACACCT	GAGCCAGCCT
GCTCCTTCCC	AGGAGTGGAG	GAGGCCTGGG	GGGAGGGAGA	GGAGTGACTG	AGCTTCCCTC	CCGTGTGTTT
TCCGTCCCTG	CCCCAGCAAG	ACAACCTAGA	TCTCCAGGAG	AACTGCCATC	CAGCTTTGGT	GCAATGGCTG
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GCATTAATAA	AGGTAAAGCC	CTGAGGGGTC	CCTGATAACA	ACCTGGAGAC	CAGGATTTTA	TGGCTCCCTT
CACTGATGGA	CAAGGAGGTC	TGTGCCAAAG	AAGAATCCAA	TAAGCACATA	TTGAGCACTT	GCTGTATATG
CAGTATTGAG	CAGTGTAGGC	AAGACCCAAG	AAAGAGAAGG	AGCCATCTCC	ATCTTGAAGG	AACTCAAAGA
CTCAAGTGGG	AACGACTGGG	CACTGCCACC	ACCAGAAAGC	TGTTTCGACGA	GACGGTCGAG	CAGGGTGTCTG
TGGGTGATAT	GGACAGCAGA	AGGGGGAGAC	CAAGGTTCCT	GCTCAACCAA	TAAGTATTGC	ACAACCACCT
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GTACTTAGAA	AAGCAAAGGG	TGCTACGTAC	ATGTGAGGCA	TCATTACGCA	GACGTAAGT	GGATATGTTT
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GGTGTGAAGC	ACCAGTGTCT	GGCACACAGT	AGGTGTCAT	TGGCTCCCTT	CCACCTGTCA	TTCCACCAC
CCTGAGGCC	CAACCGCCAC	ACACACAGGA	GCATTGGGAG	AGAAGGCCAT	GTCTTCAAAG	TCTGATTTGT
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AGTAAAAACC	ATTTAGTATT	AGTATTAGAA	TGAAGTCAAA	CTGTGCCACA	CATGGTGAAT	GAAAAAATAA
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GTAATAATCC	AGTGGATCAG	ACAGCAATGT	GCCAGATTGC	CTTGGAAACA	AAATATCTCC	AACACATGGC
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CGCTTCCGAA	AGAAGTCTTG	GGAGGTGTAC	CAGGGAGTGT	GCCAGAAAGG	GGGCTGCAGG	TCAGAACCCA
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CCTGAGCCAG	CCTGCTCCTT	CCCAGGAGTG	GAGGAGGCCT	GGGGGCAGGG	AGAGGAGTGA	CTGAGCTTCC
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403254.1
73999/01905

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403254.1
73999/01905

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GACGCTCTGC	CGCGTGGTGA	ATGCCATTAT	CTCCATGAAC	CTGTACAGCA	GCATCTGTTT	CCTGATGCTG
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CCAAGCTCTA	CAGCTTGGTG	ATCTGGGGGT	GTACGCTGCT	CCTGAGCTCA	CCCATGCTGG	TGTTCCGGAC
CATGAAGGAG	TACAGCGATG	AGGGCCACAA	CGTCACCGCT	TGTGTCATCA	GCTACCCATC	CCTCATCTGG
GAAGTGTTC	CCAACATGCT	CCTGAATGTC	GTGGGCTTCC	TGCTGCCCC	GAGTGTCAAT	ACCTTCTGCA
CGATGCAGAT	CATGCAGGTG	CTGCGGAACA	ACGAGATGCA	GAAGTTCAAG	GAGATCCAGA	CGGAGAGGAG
GGCCACGGTG	CTAGTCTCTG	TTGTGCTGCT	GCTATTATC	ATCTGCTGGC	TGCCCTTCCA	GATCAGCACC
TTCTCTGGATA	CGCTGCATCG	CCCTCGGCATC	CTCTCCAGCT	GCCAGGACGA	GCGCATCATC	GATGTAATCA
CACAGATCGC	CTCCTTCATG	GCCTACAGCA	ACAGCTGCCT	CAACCCACTG	GTGTACGTGA	TCGTGGGCAA
GCGCTTCCGA	AAGAAGTCTT	GGGAGGTGTA	CCAGGGAGTG	TGCCAGAAAG	GGGGCTGCAG	GTCAGAACCC
ATTGAGATGG	AGAACTCCAT	GGGCACACTG	CGGACCTCCA	TCTCCGTGGA	ACGCCAGATT	CACAAACTGC
AGGACTGGGC	AGGGAGCAGA	CAGTGAGCAA	ACGCCAGCAG	GGCTGCTGTG	AATTTGTGTA	AGGATTGAGG
GACAGTTGCT	T GCCCTTCAAA	GATGAGCTGT	TCCCGCCGCC	ACTCCAGCTC	TGGCTTCTGG	GCTCCGAGGA
GGGGTGGGGA	CGGTGGGGAC	ATCAGGCTGC	CCCGCAGTAC	CAGGGAGCGA	CTGAAGTGCC	CATGCCGCTT
GCTCCGAGGA	AGGTGGGTGC	CGGGCAGGGG	CTGCTCCAGC	CGCCTCACCT	CTGCTGGGAG	GACAACTGCT
CCCAGCACAG	AGGGAGGGAG	GGAGGGCAGG	CAGCGGGGAG	AAGTTTCCCT	GTGGTCTGTT	GGAGTT
GATGAGCTGT	TCCCGCCGCC	ACTCCAGCTC	TGGCTTCTGG	GCTCCGAGGA	GGGGTGGGGA	CGGTGGGTGAC
GGTGGGGACA	TCAGGCTGCC	CCGAGTACC	AGGGAGCGAC	TGAAGTGCCC	ATGCCGCTTG	CTCCGGAGAA
GGTGGGTGCC	GGGCAGGGG	TGCTCCAGCC	GCCTCACCTC	TGCTGGGAGG	ACAAACTGTC	CCAGCACAGA
GGGAGGGAGG	GAGGGCAGGC	AGCGGGGAGA	AGTTTCCCTG	TGGTCTGTTG	GAGTT	GAGCTCTTCA
GAAAGCTATA	GATGAGGCTC	CATAGGGGAT	AAAGCACAGA	CACACCTTTT	CAGAGGGCTT	ATATTTTAGT
GGCAGCCTGT	CCATAGACCT	CTGTCCCAA	CTGGCAAGTC	AGGAAACTCC	AGATTAAGGA	GTGGACTCTG
GGTTGAACAG	CCAGGTGCAC	AGATGAGTCA	ACCACACAGC	CAGGCCAGGG	AGGGCCTTCA	GCCCCAATGT
TACAGCCAGT	TCACAGCCAA	GCCAGGGCTA	GCGCCAGGCC	ACCCATAAAC	TGATCTGAGA	CTCTGTTTCC
CTGTCTCCAT	GATGATGGGA	TCAGGCTTGA	TTGCTGGTTT	GTAGGCTTGT	TATGAATCAA	GTCCAGGGA
AGAGGAGCTG	ATGGGCTGGG	GGGACGTCTT	CTGGCCCTCC	TGTCTCTTCC	CCAGATCCAC	TGGGCCCACT
CTTATCTGTT	CTCTTCTGAA	GGAAGGGTTT	TAAGGCTTCA	AAAAAAAATG	TTTTGAAAGT	CCCTGCCCTT
TCCAGCTCCT	ACCGTCTCAG	CCCTGGGAGT	GTAAGTGCT	GCAGATAGTT	AGTAAGTCTT	TGAGCAAAAC
TGAGAAAGCC	AGCCTGAGCC	TTGACATGGG	AGAAACCTCC	GCCATACATC	TCCGAAGAAA	CGGCCGCGTG
TCTCAGGGGA	GCGCAAACAC	CCGTACCCAG	GAAACAGGAC	AGCTTCTGCC	ACTGTGCCCC	TTGGGAGCCG
TACGTGGCAT	GACAAAGAAA	TCCCAGGACT	CCGCTGCCCC	ACCTGGCCAC	CCTCTGTTTA	CACCTTCCGC
GTAACGCCCC	ACTGTTTACA	TCCAAAACCTC	AGACACAAAA	TAACCACCTC	AAGAAGATAA	ATAATGATAA
GAAATAAATG	TTACGCGAGG	CAAATTTATT	CACATGGGGC	TTCCAGGCC	ACTTTGTGGT	CAGCCGGGAG
GGACGTTTTT	GCCGTCCAC	GACTCCAACG	GGCAGCCGGG	CCTACGCAAA	CATGGAAATC	TTCCAAGAGC
CTCCCTGGCC	CCCAGGGCTC	AGAGGGTGGC	AGAGCGGAGA	GCGAAGGTGG	CCGAGCCCTT	CCCCGGCCCC
CAGCCAGCCT	GGCTCCAGCT	GGGCAGGAGT	GCAGAGCTCA	GCTGGAGGCG	AGGGGGAAGT	GCCCAGGAGG
CTGATGACAT	CACTACCCAG	CCCTTCAAAG	ATGAGCTGTT	CCCGCCGCCA	CTCCAGCTCT	GGCTTCTGGG
CTCCGAGGAG	GGTGGGGGAC	GGTGGTGACG	TGGGGGACAT	CAGGCTGCCC	CGCAGTACCA	GGGAGCGACT
GAAGTGCCCA	TGCCGCTTGC	TCCGGAGAAG	GTGGGTGCCG	GGCAGGGGCT	GCTCCAGCCG	CCTCACCTCT
GCTGGGAGGA	CAAACTGTCC	CAGCACAGAG	GGAGGGAGGG	AGGGCAGGCA	GCGGGGAGAA	GTTTCCCTGT
GGTCGTGGGG	AGTTGGGAAA	AGTTCCCTTC	CTCCGGAGG	GAGG		

(2) INFORMATION FOR SEQ ID NO:3019:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3019:
 CCCGGCCCCG CCTCGTGCC 19

(2) INFORMATION FOR SEQ ID NO:3020:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3020:
 CGTCCBTGCC GCGGGCCC 18

(2) INFORMATION FOR SEQ ID NO:3021:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 28 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3021:
 GCCCCGCTGC TTGGGCTGCT CTGCCGGG 28

(2) INFORMATION FOR SEQ ID NO:3022:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3022:
 TCTGTGCTCC TCTCGCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:3023:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 21 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3023:
 TGGTGGGGTG GGTCTTGGTG G 21

(2) INFORMATION FOR SEQ ID NO:3024:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3024:
 CTGTCCCTGG TCCTGTG 17

(2) INFORMATION FOR SEQ ID NO:3025:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3025:
GGTCCCGCTT CTTC 14

(2) INFORMATION FOR SEQ ID NO:3026:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3026:
GGGGTTGTTG TTGGTCTGG 19

(2) INFORMATION FOR SEQ ID NO:3027:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3027:
TGTCTCTTT CTGC 14

(2) INFORMATION FOR SEQ ID NO:3028:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3028:
GCCTCGGGCC TCCC 14

(2) INFORMATION FOR SEQ ID NO:3029:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3029:
GGCTGGGGTC TCGT 15

(2) INFORMATION FOR SEQ ID NO:3030:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3030:
GGCCGGGGGT CGGTGGGTCC GCTG 24

(2) INFORMATION FOR SEQ ID NO:3031:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3031:
GGGCTGGGGT GCTGGCTTGG GG 22

(2) INFORMATION FOR SEQ ID NO:3032:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3032:
 GGGGCTGGGG CCTGGGCC 18

(2) INFORMATION FOR SEQ ID NO:3033:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3033:
 GCCTGGGTGG GCTTGGGGGC 20

(2) INFORMATION FOR SEQ ID NO:3034:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3034:
 GCTGGGTCTG TGCTGTGCC 20

(2) INFORMATION FOR SEQ ID NO:3035:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3035:
 GTTGTTGGG GGGCC 15

(2) INFORMATION FOR SEQ ID NO:3036:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 27 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3036:
 GCTGGGTCGG GGGGCCTCTG GGCTGTC 27

(2) INFORMATION FOR SEQ ID NO:3037:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3037:
 GCGGCGGGGC CCCC 14

(2) INFORMATION FOR SEQ ID NO:3038:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3038:
 TGGCTCCCC CTCC 14

(2) INFORMATION FOR SEQ ID NO:3039:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3039:
GCTCCCCCTTTC 14

(2) INFORMATION FOR SEQ ID NO:3040:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3040:
CGGACGAAGA CAGAGA 16

(2) INFORMATION FOR SEQ ID NO:3041:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3041:
GGCTTTGTGG GCTC 14

(2) INFORMATION FOR SEQ ID NO:3042:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3042:
GCCTGCTCTC CCCC 14

(2) INFORMATION FOR SEQ ID NO:3043:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3043:
CCCGGCCCCG CCBGBBCC 19

(2) INFORMATION FOR SEQ ID NO:3044:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3044:
CCCGGCCCCG CCBGCG 15

(2) INFORMATION FOR SEQ ID NO:3045:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3045:
CCCGGCCCG CCBCGBBCC 19

(2) INFORMATION FOR SEQ ID NO:3046:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3046:
CCCGGCCCG CCBCG 15

(2) INFORMATION FOR SEQ ID NO:3046:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2344:
CCCBCCCCG CCTCBBG 17

(2) INFORMATION FOR SEQ ID NO:3047:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3047:
CCCBCCCCG CCTC 14

(2) INFORMATION FOR SEQ ID NO:3048:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3048:
CCGGCCCCGC CTC 13

(2) INFORMATION FOR SEQ ID NO:3049:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3049:
CCCGBBCCCG CBTBGTGCC 19

(2) INFORMATION FOR SEQ ID NO:3050:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3050:
CCCGCBTGT GCC 13

(2) INFORMATION FOR SEQ ID NO:3051:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3051:
 CCCGGBCCCB CCBGTGCC 19

(2) INFORMATION FOR SEQ ID NO:3052:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3052:
 CBGBBCCCGC CTCGTGCC 18

(2) INFORMATION FOR SEQ ID NO:3053:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3053:
 CCCGCCTCGT GCC 13

(2) INFORMATION FOR SEQ ID NO:3054:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3054:
 CCGGCBCCGC CTCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:3055:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3055:
 CCGGCCCCGC CBCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:3056:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3056:
 CCCGBCCCCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:3057:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3057:
 CCCGGCCBCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:3058:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3058:
 CCCGGCCCBG CCTBG 15

(2) INFORMATION FOR SEQ ID NO:3059:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3059:
 CCCGGCBCBG BCTCGTBCC 19

(2) INFORMATION FOR SEQ ID NO:3060:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3060:
 CCCGGCCCCG CCBG 15

(2) INFORMATION FOR SEQ ID NO:3061:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3061:
 CCCGGCCCCG CCBG 15

(2) INFORMATION FOR SEQ ID NO:3062:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3062:
 TCCBTGCCGC GGC 14

(2) INFORMATION FOR SEQ ID NO:3063:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3063:
 TCCBTGCCBC GGGC 15

(2) INFORMATION FOR SEQ ID NO:3064:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3064:
TCCBTGCCBC GGGCC 15

(2) INFORMATION FOR SEQ ID NO:3065:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3065:
TCCBTGCCBC BGGCC 15

(2) INFORMATION FOR SEQ ID NO:3066:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3066:
GTCCBTGBCG CGG 13

(2) INFORMATION FOR SEQ ID NO:3067:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3067:
TCCBTGBCGC GGG 13

(2) INFORMATION FOR SEQ ID NO:3068:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3068:
TCTGBGCTCC TCTBBCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:3069:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3069:
CTGTGCBCTT BBCBCCTGGG 20

(2) INFORMATION FOR SEQ ID NO:3070:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3070:
TGTGBTCCBC TBGBCTGGG 19

(2) INFORMATION FOR SEQ ID NO:3071:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3071:
 TCTGTBCTCB BCTCBCTG 19

(2) INFORMATION FOR SEQ ID NO:3072:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3072:
 TGCTCCTCBC BBCTGGG 17

(2) INFORMATION FOR SEQ ID NO:3073:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3073:
 CTCCTCTBGC CTGG 14

(2) INFORMATION FOR SEQ ID NO:3074:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3074:
 GTGCTCCBBT CBBCTGGG 18

(2) INFORMATION FOR SEQ ID NO:3075:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3075:
 GTGCBCCBBT CBCCTGGG 18

(2) INFORMATION FOR SEQ ID NO:3076:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3076:
 TCTGTGCBCC TCTBGBCT 18

(2) INFORMATION FOR SEQ ID NO:3077:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3077:
 TBBTCCTBBC BCCTGG 16

(2) INFORMATION FOR SEQ ID NO:3078:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3078:
 TGTGCTBBTC BCBCBTGGG 19

(2) INFORMATION FOR SEQ ID NO:3079:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3079:
 GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:3080:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3080:
 CTGTGCBCT CTC 13

(2) INFORMATION FOR SEQ ID NO:3081:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3081:
 CBGTGCBCCB CTCBCTG 18

(2) INFORMATION FOR SEQ ID NO:3082:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3082:
 GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:3083:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3083:
 CBCCTCTCBC CTGGG 15

(2) INFORMATION FOR SEQ ID NO:3084:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3084:
CCTCTCBCCT GGG 13

(2) INFORMATION FOR SEQ ID NO:3085:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3085:
GCTCCBCTCG CCT 13

(2) INFORMATION FOR SEQ ID NO:3086:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3086:
TGCTCCTCBC GCC 13

(2) INFORMATION FOR SEQ ID NO:3087:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3087:
GTTGTTGBTC TGG 13

(2) INFORMATION FOR SEQ ID NO:3088:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3088:
GGTTGBBBTT GGTCTTGG 18

(2) INFORMATION FOR SEQ ID NO:3089:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3089:
GGTTGTTGBT GBTCTG 16

(2) INFORMATION FOR SEQ ID NO:3090:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3090:
GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:3091:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3091:
GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:3092:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3092:
TTGTTGTBGB TCTGG 15

(2) INFORMATION FOR SEQ ID NO:3093:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3093:
GGGTBGBBGB GTCCGCTG 18

(2) INFORMATION FOR SEQ ID NO:3094:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3094:
GGGTCBGBGG BTCBGCTG 18

(2) INFORMATION FOR SEQ ID NO:3095:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3095:
GGGTBGGTGG GTC 13

(2) INFORMATION FOR SEQ ID NO:3096:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3096:
GGGTCGGBGG GTCBGC 16

(2) INFORMATION FOR SEQ ID NO:3097:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3097:
CCTGGGTGGG CTT 13

(2) INFORMATION FOR SEQ ID NO:3098:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3098:
GGGTGGGCTT GGG 13

(2) INFORMATION FOR SEQ ID NO:3099:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3099:
CCTGGGTGGG BBTGGG 16

(2) INFORMATION FOR SEQ ID NO:3100:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3100:
CCTGGBTGGG CBTGGG 16

(2) INFORMATION FOR SEQ ID NO:3101:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3101:
GCCTGBGTGB BCTTGGG 17

(2) INFORMATION FOR SEQ ID NO:3102:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3102:
CCCAVGCCV CCCAGGC 17

(2) INFORMATION FOR SEQ ID NO:3103:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3103:
AGCCCACCCA GGC 13

(2) INFORMATION FOR SEQ ID NO:3104:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3104:
BCCTGGGTGG GCTB 14

(2) INFORMATION FOR SEQ ID NO:3105:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3105:
GGTGGGCTTG GG 12

(2) INFORMATION FOR SEQ ID NO:3106:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3106:
CCBGGTGGG CTTGGG 16

(2) INFORMATION FOR SEQ ID NO:3107:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3107:
CTGGGTGGGB BTGGG 15

(2) INFORMATION FOR SEQ ID NO:3108:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3108:
CCBGGGTGGG CTGG 15

(2) INFORMATION FOR SEQ ID NO:3109:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3109:
GGGTGGGCTT GG 12

(2) INFORMATION FOR SEQ ID NO:3110:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3110:
CCTGBGTGBG CBTGGG 16

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